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Farm Department.

Conducted by J. H. Brown, who lives on his farm at Climax, Mich., which is conducted as the Michigan Farmer Experiment Farm. All correspondence for this department should be sent to Climax, Mich.

THE EDITOR'S FARM NOTES.

PREFERS TO LEAVE MANURE IN HEAPS.
In a recent issue it was stated that it was bad to haul out manure in winter and leave in heaps.

Now, Mr. Brown says it is better to spread from the sled or wagon as fast as drawn out. Perhaps it is on some kinds of soil.

Three years ago I drew in winter when there was six inches of snow on the ground. Covered two acres of heavy clay soil that I wanted to sow to oats in the spring. It was corn stubble.

I commenced plowing April 16th; plowed eight acres, then came to where I had spread the manure in the winter. It was so wet I had to leave it for a week. Sowed what I had plowed, then came a shower, which put me off another week. Then I went on and plowed and sowed the manured portion, which was still very wet.

When I plowed this portion again the following fall for wheat the ground was like a brick, and has not got over it yet. Where I left the manure in heaps last winter I did not have any trouble, as I spread only just as fast as I plowed.

Last winter I did the same thing on another lot that I fall plowed. I drew the manure in the winter on four acres and spread from the sled. April 23rd I cultivated over six acres.

When I spread the manure I had to stop and wait for it. I finally sowed the field the 28th of April, and it was not in good order then, and the crop did not do as well on the manured part as on the rest of the field.

Now I am drawing out manure (January 30), but I leave it in heaps. I intend to plant corn on the land. It is bean ground that I did not sow to wheat.

My neighbors are doing the same as I am on the heavy clay soil, and they think as I do, that they can spread it as fast as they plow and get better results than to spread when drawn in the winter.

Livingston Co., Mich. E. R. MERITHEW.
Friend Merithew brings up a question that should be more thoroughly discussed. There are various conditions to consider when planning to haul out manure during the winter months, in this latitude, and the above communication makes their consideration the more pertinent at this time.

We are of the opinion that our friend made a mistake in putting manure on the ground intended for oats. The soil was heavy, and the manure spread on so thickly on that portion manured, that the surface soil was slow in thawing out.

Had this field been intended for corn, friend Merithew would have had no trouble, though we would recommend spreading the manure very evenly and thinly all over the field, rather than "doping" a small portion thereof so heavily.

Oat ground must usually be plowed so early in the spring that we would generally refrain from practicing winter hauling and spreading at all on

such ground. If we were to haul and spread on fall plowed ground, we should take extra pains to see that the manure was finely pulverized and spread at the rate of not more than eight loads per acre.

But the proper place to haul and spread manure, during the fall and early winter, is on sod ground (clover, or clover and timothy meadow), intended for corn the following spring. This is what we have advocated in these columns for some time past.

Manure thinly and evenly spread on such land, where the surface is level, or only moderately rolling, is taken up by the grass roots as fast as the liquid portion percolates into the surface soil. All portions of the surface receive an equal amount of the fertility furnished in soluble form, and there is no waste, such as occurs when the manure is left in heaps in the field for any length of time.

We should, by no means, haul out manure throughout the fall and winter and leave in piles, no matter how small or large. The liquid portion is leached out by the rains and percolates down into and below the surface soil underneath each pile.

The crops grown the following season on this land will have a bumpy appearance. Between each of these piles the crop will be very little better than it would have been with no manurial application, while a large bumpy growth of grain shows the latitude and longitude of every manure pile in the field.

Friend Merithew's failure with winter spreading did not result so much from the kind of soil, as from too thick spreading or "doping" of a small portion of the field. The next cause was that he put this manure on ground that must be plowed so very early in the spring.

In this connection, we must say that we have spread manure on very heavy clay loam soil in midwinter, spreading thinly and evenly, and commenced plowing as soon as the surface soil was dry enough to plow. There was no frost whatever underneath the manured portion of the field.

Some farmers commence plowing too early on such heavy soil. It hurts the land to plow when fairly saturated with moisture, and the lumps which result may not become thoroughly pulverized in years. It is better to wait even a week or ten days, though the season be called late. Very generally we should prefer to plow oat ground in the fall, provided conditions are favorable, even on corn ground.

We believe friend Merithew made a mistake again during the past winter in not spreading his manure from the sled. This time he plants to corn and would not commence plowing before the latter part of April at least. There would certainly be no frost in the surface soil at that time.

As it is, the manure in the heaps has been leaching more or less ever since hauled out from the stables. We

should prefer one large manure pile in the barnyard all this time, rather than hundreds of small piles in the field.

SAND VETCH OR HAIRY VETCH.

Will some of my brother farmers give their experience with sand vetch? Where can the seed be obtained?

Berrien Co., Mich. VICTOR H. THOMAS.
We have had no experience with sand vetch, but can furnish you some "particulars." On dry sandy soils this plant does better than almost any other plant in furnishing plenty of forage for early summer use. However, we have no use for it on our farm.

The seed may be obtained of some of the seedsmen who advertise in The Farmer. You can sow in the fall, from one bushel to six pecks per acre, sowing broadcast or in drills. We should prefer drilling. The seed may be sown early in the spring for soiling purposes, and is preferable to fall sowing in latitudes where the winters are usually severe.

The vetch for feeding purposes should be cut when in full bloom. Like peas, the vetch does better if supported by some growing grain, such as oats or wheat.

LOW DOWN TRUCK WHEELS.

In a recent Farmer you recommend steel wheels 30 and 34 inches high and four-inch tread. I bought, seven years ago, wheels 30 and 34 inches high, five-inch tread.

I laid off a good set of high narrow-tread wheels and have not put them on since. The metal wheels had rims one-half inch thick. They are now worn to less than three-eighths inch, but I would not now give them for the best wooden truck wheels made.

I would advise six-inch tread, and the front wheels to be not over 24 inches high, being wide, if they go well under the load in turning. Three of us bought wheels at the same time and saved 10 per cent; the others got higher and narrower tread, one 3½, the other four-inch. Mine have given the best satisfaction. There has not been a cent's worth of repairs in seven years.

Monroe Co., Mich. J. W. MORRIS.
If the platform is to be wide and project over the wheels, we think, with you, that the front wheels should not be more than 24 inches in diameter, and the rear wheels 28 inches.

Were we to use the sectional wooden wheels advertised in this paper, we should prefer six-inch tire. We have considered the four-inch tire or rim better for the steel wheels, but having used none wider, we may be mistaken.

Your experience goes to prove the steel wheel a good investment. Would not a steel wheel with removable box be preferable? This is what we think of purchasing.

SOWING FALL RYE THIS SPRING.
Could I sow fall rye and turn under to good advantage for fall wheat? That is, to sow the rye in the spring, as early as possible?

Huron Co., Mich. M. FREMONT.
We should prefer not to sow rye this spring. Had rather sow Canadian field peas for this purpose, in your locality. For best results, rye should be sown early in the fall.

CORN AND OATS FOR PIGS.
I wish to inquire as to the results of feeding corn and oats, ground, to sows and young pigs. I find it impossible

to get other feed in the amount which I am now using.

Clinton Co., Mich. A. KINNEY.
Corn and oats will do very well if you feed largely of the oats, say 100 pounds of corn to 200 pounds of oats. Too much corn meal is fed to young pigs very generally. We prefer shorts or fine middlings, and also some bran, when obtainable at reasonable prices.

For the Michigan Farmer. HARVEST RYE INSTEAD OF PLOWING UNDER.

In reply to Marion Coomer's query as to plowing in a crop of rye, following with buckwheat, plowed in, and sowing to wheat the first of September, I would add:

If his object is to enrich his land in the shortest time, with the greatest economy, he should harvest his rye and change it so far as its value will go in commercial or home fertilizer, applying as a top dressing or sowing clover seed alone.

Plow the ground immediately after harvesting the rye, and keep the ground well harrowed. I have yet to see enough benefit from plowing in rye to pay for the grain that would have been harvested on sand land. Any leguminous crop plowed in never fails to benefit any soil.

Manistee Co., Mich. W. K. S.

For the Michigan Farmer. CORN WORMS, BEANS AND WHEAT.

In 1884 I planted a field of eighteen acres to corn. The soil was quite a heavy loam. It was a stiff sod of June and blue grasses, well covered with manure, plowed and fitted well, and planted on the 15th and 16th of May.

The seed was good. In fifteen or twenty days the worms destroyed at least three-fourths of the corn, taking it clean in places.

I planted in beans. The field was well cultivated, and on the 26th and 27th of September was sown to Fultz wheat. Two days' work with two teams put the wheat in.

I gathered 450 bushels of ears of corn, sold \$70 worth of beans and 765 bushels of wheat, threshers' measure, which overrun three pounds to the bushel.

I have planted the same field twice since, and have not been troubled with worms, nor on any other field. Crows, birds, gophers and other vermin do not seem to like the corn, and my remedy has been to smoke the seeds. I use hickory chunks usually for smoking.

Lenawee Co., Mich. CHAUNCEY COOPER.

(Such ground should be plowed in the fall if the soil and surface are such that there is little danger of washing. A still better way is to keep such land in short rotation, unless laid by for permanent pasture.

If farmers would more generally adopt some regular rotation of crops for each field, not longer than four years in duration, there would be far better results in soil conditions and crop returns. A farm of 80 acres could be divided so as to put all the plow land into four fields, reserving a few acres around the buildings for lawn, yards and feed lots.

Some such arrangement would ob-

viate the trouble from failure in crop production from the immediate use of stiff clay loam sod, freshly plowed and planted to spring crops, for there would be no such sod to plow up.

Friend Cooper secured a good yield of crops from this field after all, and it shows that he is a good farmer, in utilizing every opportunity. But he wished to secure a good crop of corn on the field, and might have had from 1,500 to 1,800 bushels of ears of corn, provided the field had been in short rotation with clover, or even had he plowed the previous fall.

We have often heard of the smoking of seed to repel undesirable depredations, but never tried the plan.—Ed.)

SHREDDED FODDER AGAIN.

We were a little surprised to see in The Farmer an article by our friend Martz, of Putnam county, Ohio, purporting to be a reply to our article on shredding fodder. I was not surprised at the article so much as the methods of reasoning he employed to prove that we were mistaken in our conclusions that the husking and shredding process was too risky and costly for general adoption by the farmers under present conditions. I would hardly feel like taking up space in the columns of The Farmer to correct the statements made by friend Martz if I did not know him and know that he is honest in his statements and believes that he knows just what he is talking about, and would not write anything misleading if he knew it to be so, upon any subject.

His first statement that I employed too much help when shredding would prove but little, if true, as I only had nine men, while he had eight to do the same work. As I did not count labor of ten anything, the fact that I had an extra team would make no difference in cost either way. Besides our teams were kept busy all the time except once when machine stopped for repairs. Mr. M. should have stated distance he hauled, where work can be done with three teams.

But let us grant that point. Mr. M. says he husks and shreds 300 bushels per day of nine hours, for \$10, and \$11.25 for board, or \$11.12 1/2 in all. Will you tell us what pays for the labor of those eight men you have at work and the cost of fuel consumed by engine? Come, let us reason together. Husking 300 bushels, including board, \$11.12 1/2; eight men one day, \$8; fuel for engine one day, 75 cents. Total, \$19.87, instead of \$11.12 1/2, or \$6.25 per hundred bushels.

Will anyone deny that this is not a fair statement of cost bill according to friend Martz's own statement of help employed and cost of shredding? Now, had this been husked by hand at the highest price paid for husking in this locality, it would have been: Husking 300 bushels, at 4 cents, \$12; hauling same to crib, \$1.50; hauling fodder to barn, \$4; total, \$17.50; difference in favor of hand husking, \$2.37 for 300 bushels.

Again, Mr. M. states that "the food value of the fodder is increased from 30 to 50 per cent by shredding." This, if true, would be very important to stock growers. But the writer fails to inform his readers just how that increased value is obtained. It certainly does not add to the nutritive value of that portion of the fodder generally consumed by the animals. So it must be by putting the stalk in such condition that 50 per cent more will be eaten than when fed whole.

But from close observation ourselves, as well as from statements from others, we are led to regard this as not being true. For, so far as we can ascertain, without actually weighing, our own stock leaves just as large a per cent of the fodder as when fed whole. We think we can tell friend Martz where the increased richness comes in. If he will examine his shredded fodder he will find quite an amount of shelled corn mixed all through it, and of course that should add very materially to its value for feed. But it does so at the expense of the corn in the crib, both in appearance and value, and is no gain to the owner whatever.

Another thing. It is almost impossible to get corn husked in this way in fit condition to put in crib and keep in bulk any length of time. The amount of husk and silk left on ears would render it a most unsightly mess to take to market. I know some of the advocates of the process say this makes no difference, but if their huskers, when husking by hand, happen to

leave a tenth part as much dirt on corn, they object at once.

It seems to me, if we want to make a fair comparison of the two methods so as to get real information and ascertain the real advantages to be gained by this method, we should allow the same conditions in both. And if we do this it only adds to the advantages of hand husking over shredding, whichever way you may take it. Any good husker will husk for 25 per cent less if allowed to leave the corn in the same condition as it is when it comes from the shredder.

But it is claimed that the increased value of the fodder comes mainly from having it stored in the barn during bad weather, thus preventing any damage from exposure in that way. But judging from experience as well as observation, there has been about as large a per cent of shredded fodder spoiled or damaged by heating or moulding, by being put in when not in proper condition, as there is where it is bundled and left to stand in the field during winter. In fact, the risk is so great in this way that this fact alone has prevented some of our own neighbors from shredding this fall and winter.

And we believe where farmers have room to put their bundled fodder in barn or shed in the fall, its food value is just as great as it can be, in whatever way it may be prepared. That shredding puts it in fine condition for bedding stock no one will deny, although we have heard farmers claim that stock would eat it nearly all up and then extol its virtues for bedding, etc. But it is a well known fact that we cannot "eat our cake and keep it, too," and if the animals eat such a large portion there must be a correspondingly small amount left for bedding and manures.

There are many advantages that could be gained by handling our fodder in this way, however, if there were not so many risks and such heavy costs attending it, but it will not, in our opinion, come into general practice until the cost is reduced in some way and some of the risks removed in some way not now known.

It is possible that friend Martz, who owns and has run a husker and shredder four years, jumped at the conclusion that our article might injure the business of those who had the machines and wished to operate them. But we had no such thought. We only wished to give our experience for the benefit of those who were in doubt as to the economy of the practice, and also to show some of the disadvantages as well as the advantages attending this new process. For it is well known that the virtues of almost any new business or method of work are sometimes unduly extolled or magnified by those who first adopt them; not intentionally so, however, but because they may have had insufficient experience to give the matter a fair test. And it seems to be that way in some places with this business, for we know of some who were strong advocates of this way of caring for fodder a year or two since, who now claim it has too many objections for them to engage in it under present conditions.

Those who have tried shredding with threshing machines, after the fodder has been husked by hand, and the fodder let stand until thoroughly cured, say it is much cheaper and the risk of overheating or moulding much less, and recommend the latter method as being the better one. They get all the benefits from shredding with but little risk and less cost, and the work can be done later in the season when husking is over, or at times when the weather is too cold to husk.

And the fodder can be handled from field ready for shredding with the farmer's own force, or by exchanging for sufficient help to do the work, which according to Mr. M.'s method of calculation would reduce the cost to the minimum if it did not prevent any cost at all. And we believe this will be the method of shredding that will come into general practice among the farmers if it is practiced at all.

Allen Co., O.

JOHN BEGG.

(Having had considerable experience with cut and shredded corn fodder for the last four years, we partially agree with friend Beggs in his statements.)

There may be from 25 to 35 per cent more of the stalk material eaten when cut or shredded, but we cannot "figure" that 50 per cent more is consumed. More is eaten when cut, for the reason that the stalk material is presented in a more palatable condition.

Either cut or shredded stalks, that are not consumed, are utilized for bed-

ding in both our stables. There has been more waste—or fodder rejected—by our cattle during the past winter because some of the corn was frosted before we got it cut and shocked last fall.

We would prefer to husk our corn by hand, as the work would cost us less, and we also prefer to stack our stover in the barrack and shred as needed, say two loads per week, using the power windmill, when there is wind enough to run the heavy six-horse shredder.

In a cold, dry, steady winter the large mows and stacks of shredded stover will keep all right. But during a warm, wet, that is, an open winter, there will be more or less spoiled stover.

The large power huskers and shredders are all right to use on farms where the storage capacity and arrangement is such that no deterioration of the product is liable to occur. Such conditions do not obtain on our farm.—Ed.)

For the Michigan Farmer.

FARM BOOKKEEPING.

I have been tempted several times to write to this paper, and when I noticed the articles on bookkeeping it thoroughly stirred me up. Now, you have struck a subject that I can talk about, for I have had actual practice in farm bookkeeping.

It certainly is as necessary to keep books on the farm as in any other business. It is the principal reason why boys do not stay on the farm.

I know it is the only reason why I am a farmer. I kept books in several different branches of business.

But I found it to be the most interesting to keep farm books. Anyone that has any ambition at all cannot help but take an interest in farming if they keep a good set of double entry books, and the more pride they take in them the more they will enjoy farming. I have kept farm books for several years, and I can show the exact cost of every crop, the gains and losses on stock, and all expenses since I commenced farming.

Now, you may think I spend all of my time at this work. But anyone that understands double entry bookkeeping need not spend more than one hour or each day to keep them for a 100-acre farm.

A few figures from my books are given below:

DEBIT ACCOUNT.	
Cost of plowing and sowing seven acres of oats, \$2.79 per acre.....	\$19 55
Harvesting, \$1.30 per acre.....	13 33
Threshing, \$1.25 per acre.....	8 75
Total, \$5.95 per acre.....	\$41 63
43 bu., 13 1/2 c per bu. per acre.....	\$57 80
CREDIT ACCOUNT.	
300 bu., 16c.....	\$48 00
Straw.....	7 00
	\$55 00

Net\$13 37
This allows \$1 per day for each day's work, and \$1 per day for team, so you get some profit for yourself and team.

I can turn to my books any day and examine the accounts in this way of all crops that I have raised. Now, is this worth anything? Couldn't you afford to spend one hour each day in order to have such a record?

If you keep such accounts you will not hold beans that cost you 60 cents for \$1.25 when you can get \$1 per bushel, when finally they go down to 40 cents. Neither will you sell corn that cost 14 cents for 10 cents per bushel.

Now that you have my experience, I hope that, if you, brother farmers, want to make your children a present, you will give them a practical business education. I am sure that it will do them more good than almost anything else.

(The keeping of accounts is commendable, and there are various methods that are simple and require little time.)

However, very few farmers will follow the practice of double entry bookkeeping, no matter how much we preach and advocate such a form.

A day book and simple blank book for memoranda are all that we find necessary, and such field accounts as our friend describes are made up at the end of the season from data taken from the memorandum book.

It takes not more than ten minutes per day to enter all details and items, and these are duly entered in the regular order and at the time of their occurrence. The combined day book and memorandum is carried in our pocket at all times.—Ed.)

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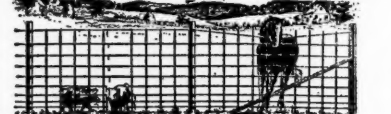


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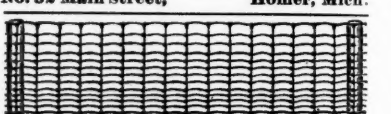
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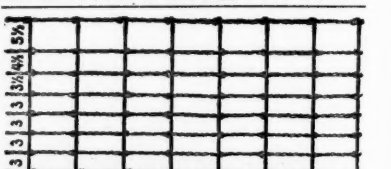
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THE HOLSTEIN AS A GENERAL PURPOSE COW.

To the Editor of The Michigan Farmer.

I have been a subscriber to your valuable paper for the last year, but this is my first attempt to write an article for it. To start with, I wish to ask you if you consider it more profitable to sell milk to the creameries at 80c per cwt. all winter than to sell butter? In my opinion the average farmer makes a mistake by selling milk. He robs his pigs and calves, if he has any, and is running his stock and farm down. Many farmers sell milk, also their hay. I approve of raising mostly clover hay, and when I can buy nice June clover delivered for \$4 per ton, I buy a year's supply besides my own, and raise plenty of well bred young stock and feed out all hay and grain on my farm. I find by so doing I have at least 200 wagon loads of manure in my barnyard this spring, and have covered one field and have enough to cover another. By making butter I have plenty of skim milk for pigs and calves, and they do nicely if properly fed.

In regard to a general purpose cow, in the last year I have come to the conclusion that the well-bred Holstein is the kind, as I have often been tired of milking two or three cows to get one pail of milk when one good registered Holstein cow would give as much as two or three common cows all winter, and you have only one to shelter and feed. Many claim their milk is poor and blue. I have found out different. It is true with many herds, but no one is to blame but ourselves if we buy stock from such herds to start with. Dairy cows of any kind can be ruined, and their milk run low in butter fat if not properly bred. But in breeding, each year when you make a change, change for the better, and use a sire that is out of stock that tests higher in butter fat than your own if you can find him, and you will soon have a model herd, in quality as well as quantity. If you follow breeding for a purpose you can accomplish it in time.

W. M. GILLETT.
Shiawassee County, Mich.

Our correspondent apparently thinks that the "general purpose" cow now under discussion is one that gives a large amount of milk which tests high in butter fats. We expected he would tell how his Holstein steers feed in comparison with others. Everyone knows that a good Holstein is a deep milker, but are not impressed with the feeding qualities of the breed. What Mr. Gillett says about selling milk is to a certain extent true. But we have found districts in which milk is largely sold generally in good shape financially, and the farms well kept up. As a matter of fact a pound of butter takes less from a farm in comparison with its value than any other product we know of. Perhaps a pound of wool will be found a close competitor. But that pound of butter has cost a great deal of hard labor in the barn and in the household, and it must be intelligent and never-tiring labor as well. Taking the whole question of butter-making under consideration, we think in a majority of cases a good creamery within a reasonable distance of the farm gives better returns to the farmer, one year with another, and saves much work to the women of the household, than if the butter was made on each farm. The skim milk is saved for the pigs and calves, and the trouble and annoyance of hunting up a market for the butter is saved. The butter for the district is then of even quality, not a mixture running from extra to the lowest grade. Of course we know that there have been numberless failures of creameries in this and other States, but they have always come from the ruinous prices paid for plants, the difficulty of procuring a first-class butter-maker who was also a business man, and the jealousies and interference of patrons with their management. Those started under proper auspices, and run on business principles, have proved a boon to every district in which they have been established.

Our correspondent's ideas regarding the growing of fodder crops and feeding them out on the farm are certainly

sound. A farmer who makes a business of growing clover hay to sell is sure to get in worse shape from year to year. A crop of clover hay, especially if the seed is allowed to partially mature, takes a great deal from the soil. The value of the crop comes from feeding it out on the farm and turning it under to keep up the soil's fertility, not selling it at \$4 per ton, as many farmers have done the past winter.

But this is outside of the "general purpose" cow, the topic we thought Mr. Gillett intended to discuss. That sort of a cow is not only able to pay her way at the pail, but her male progeny, which will average 50 per cent of the whole, will be good feeders, mature early, and sell near the top of the market when well finished. Besides that, when her days of usefulness in the dairy are over, this cow should make a good carcass of beef herself. In comparing the profits of the special dairy and the general purpose cow, there is another point which is seldom given thought. It is this: If a cow's calves are 50 per cent male and 50 per cent female, it is safe to say that one-third of the females will not prove first-class dairy animals, or even be capable of paying their owner any profit over their cost. Thus, if the special dairy cow, during her life, produces say ten calves, five of them will be bulls, which will not pay to feed, and one or two heifers, which will not prove profitable dairy animals. The case will then stand this way: Five bulls and one or two heifers which are not worth anything to feed, and three or four heifers which will make good dairy cows. There is as yet no breed of dairy cows which can be depended upon to produce heifers which will in every instance prove profitable in the dairy. On the other hand the calves of the general purpose cow will, if she is bred to good bulls, invariably prove good feeders, so that out of ten calves there will be five bulls and two heifers which will make profitable breeders, and three heifers which should be good dairy animals. We are supposing the cows in each case to be good grades, and bred to pure bred bulls. Would the results as a rule be much different than those figured on? And does not the general purpose cow become more valuable the longer she is considered?

For The Michigan Farmer.

TIMELY TOPICS.

Every breeder, no matter of what kind of stock, when he enters the ranks with stock breeders does so with a more or less definite ambition or aim. Generally, and I might say rightfully, most of us enter upon the breeding of fine stock with the hope that we may profit financially thereby. And yet, take the country over, there are perhaps ten men who fail utterly or at least lose money in the breeding of pure bred stock to one who succeeds. Experienced stock breeders who have given the best thought and work of their lives to some particular breed try to improve the quality of their stock from year to year, while the small breeder, of limited means and experience, thinks he is doing well if, after taking care to select good foundation stock, he is able to maintain such excellence.

Almost countless numbers of breeders have learned to their sorrow that it is only a short step, comparatively speaking, from the high bred animal of merit—sleek and well kept—the product of the careful breeder and feeder, to the ordinary scrub.

If we do not continue to furnish the conditions, under which it has been possible to develop and improve a breed, we cannot hope to maintain its highest quality, much less look for any improvement. Let us examine this thought for a moment, in connection with some of our English mutton breeds of sheep. There can be no question but that the introduction of the English mutton breeds into the United States has proven a great source of profit to our farmers. And yet they have not given universal satisfaction; it is improbable that any farm product ever will, because of the varied character of our farming population.

Take Shropshire sheep for example. No other English breed of sheep has ever gained the wide spread popularity that the Shropshire has, and yet we are able to find a large number of farmers who have tried Shropshires and do not like them. We attribute this largely to the fact that the ma-

jority of our farmers have not yet become accustomed to the management of large mutton sheep. They do not realize how important it is to furnish the sheep similar conditions to those obtaining in England. As a general thing we are too careless about the character of the food given them and the quantity as well.

It is a good time now to think about growing what your sheep ought to have to eat next winter, for that season is, of course, one of the most critical. We want to urge every sheep breeder to raise a root crop this year. Then be sure you set aside a good field of clover for hay, take care to harvest and store both carefully, then next winter you and your sheep can "laugh and grow fat."

HERBERT W. MUMFORD.

LIVE STOCK BUSINESS OF GREAT BRITAIN.

To the general reader the information conveyed in the statement that nearly 75 per cent of our fresh beef comes from the United States is but the expression of something known to everybody. But if, on the other hand, you were to ask the general reader where the remaining 25 per cent comes from, he could not tell you. If, again, you were to follow the inquiry a little further and search the Board of Trade returns you would not be much wiser, for the reply would simply be: "Oh it comes from 'other countries.'" The customs department will ostentatiously devote a whole column to 116 tons of German mutton, which only reached us during the first four and last three months of 1897, and yet they completely conceal the fact that over 32,000 tons of fresh meat reached us from New Zealand, Queensland and New South Wales, or the equivalent to 98,460 bullocks of 6½ cwt. each. So much is heard now-a-days about fostering our colonial trade, one really feels it is a distinct grievance to hide away such an important item under the meaningless grouping "other countries." The expansion of the fresh meat trade in 1897, although fully expected by those directly interested, on the whole exceeded their ideas, and while there was no doubt a bigger consumptive demand, it was hardly sufficient to cope with 13 per cent more beef, 10 per cent more mutton and close on 16 per cent more pork. With respect to the latter item, the imports have been largely made up of new lines of hog products from the United States, such as loins, hams, sausages, etc., and judging from recent returns this new feature appears to be steadily gaining ground, and will probably displace to some extent the shipments of fresh pork from Holland and Belgium. The imports of beef for the year represent 463,100 bullocks of 6½ cwt., or say 91st. The fresh mutton is equal to 1,596,000 sheep of 56 lbs. each, and the fresh pork to 231,440 pigs of 1½ cwt. each. The imports of fresh meat thus converted disclose the astounding fact that throughout the year 1897 there were landed daily at various parts in the United Kingdom 1,257 bullocks, 4,380 sheep, and 635 pigs. Thus far quantities. We come now to the matter of quality. Argentine frozen mutton has maintained a uniform degree of excellence remarkable compared with the bad condition of many consignments from Australian and New Zealand ports. The fresh beef received from Queensland and New South Wales also gave occasion for complaint, and controversy still wages as to whether the meat was bad when shipped, or suffered a "sad sea change" on the voyage. New Zealand lamb for some considerable time was indifferent in quality and condition, but subsequently improved, although toward the end of the year again it appeared to suffer from prolonged storage. The monetary value of the fresh meat imports for the year as returned to the Customs House authorities reached the extraordinary total of £11,376,663 (a sum exceeding the values for 1896 by £942,000), which virtually represents a daily turnover of £36,347.

The live stock imports were practically confined to the United States, Canada and Argentina, the proportion from each being respectively 67.33 per cent, 20.45 per cent and 11.95 per cent. Compared with 1896, we had 23,180 more cattle from the United States, 24,904 more from Canada, and 8,169 more from Argentina, an increase altogether of 56,252 head, but there was a falling off in the channel island shipments of 284, which left the net in-

crease 55,968 head. In live sheep the decrease is 158,088, made up of 80,005 less from the United States, 20,006 less from Canada, and 63,913 less from "other countries" (chiefly Iceland) plus 5,836 from Argentina. This diminution in the sheep imports is only 26 per cent less than we received in 1896, but fully 42½ per cent under the imports of 1895, when the numbers reached the enormous total of 1,065,470 head. The receipts for 1897 give an average daily importation of 1,703 live cattle, and 1,680 sheep, and if we add to these the fresh meat equivalents given above, we find that day in and day out the whole year round 2,960 cattle, 6,060 sheep were landed at the various foreign animal wharves in the United Kingdom, the fresh pork products by the same process representing the daily discharge of 635 pigs, averaging 1½ cwt. each. Adding the return value of the fresh meat and live stock imports together the amount totals £22,756,995, giving a daily turnover of £62,347. By applying the Holt schooling method to the figures we arrive at the startling fact that during every minute of every day last year £43 6s worth of imported meat was being landed at our ports.—London Meat Trades Journal.

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THE NEW STANDARD.

Those who intend breeding to trotting stallions this season should remember that the new standard rules recently adopted will go into operation November 1st next, and that it will be well to keep this fact in mind when selecting a stallion to breed to. The new standard reads as follows:

THE TROTTING STANDARD.

When an animal meets these requirements, and is duly registered, it shall be accepted as a standard bred trotter:

1. The progeny of a registered standard trotting horse and a registered standard trotting mare.
2. A stallion sired by a registered standard trotting horse, provided his dam and grandam were sired by registered standard trotting horses, and he himself has a trotting record of 2:30 and is the sire of three trotters with records of 2:30 from different mares.
3. A mare whose sire is a registered trotting horse and whose dam and grandam were sired by registered standard trotting horses, provided she herself has a trotting record of 2:30 or is the dam of one trotter with a record of 2:30.
4. A mare sired by a registered standard trotting horse, provided she is the dam of two trotters with records of 2:30.
5. A mare sired by a registered standard trotting horse, provided her first, second and third dams are each sired by a registered standard trotting horse.

THE PACING STANDARD.

When an animal meets these requirements and is duly registered, it shall be accepted as a standard bred pacer:

1. The progeny of a registered standard pacing horse and a registered standard pacing mare.
2. A stallion sired by a registered standard pacing horse, provided his dam and grandam were sired by registered standard pacing horses, and he himself has a pacing record of 2:25 and is the sire of three pacers with records of 2:25 from different mares.
3. A mare whose sire is a registered pacing horse and whose dam and grandam were sired by registered standard pacing horses, provided she herself has a pacing record of 2:25 or is the dam of one pacer with a record of 2:25.
4. A mare sired by a registered standard pacing horse, provided she is the dam of two pacers with records of 2:25.
5. A mare sired by a registered standard pacing horse, provided her first, second and third dams are each sired by a registered standard pacing horse.
6. The progeny of a registered standard trotting horse out of a registered standard pacing mare, or of a registered standard pacing horse out of a registered standard trotting mare.

The above rules have been under consideration since 1896, when they were first formulated. In 1897 it was expected the Association would adopt them, but action was deferred for another year. They have now secured the endorsement of the Association, and will govern all admissions to the Trotting Register after November 1st. It will be seen that they differ materially from the present rules, and demand better breeding on the part of animals to secure the designation of "standard bred." The increasing stringency in the rules for admission to the Trotting Register is in line with the gradual development of a breed, and the time is not distant when a standard bred trotter or pacer will have to show a certain number of crosses of standard bred horses on the side of both sire and dam to be eligible to registry, speed qualifications being entirely eliminated, as in the case of

THE EXPORT TRADE.

Speaking of the exportations of American horses, special efforts are now being made by the Department of Agriculture to widen the European market for this farm product. It is believed that Germany and Belgium afford the best present market for horses, but the horses required are high bred. Excellent prices, however, will result. The export trade to Europe has very largely increased within the last year or two and the outlook is most promising, as European army officers are finding that American horses prove superior to all others in wind, limb and other desirable riding qualities and the consequence is that they bring fancy prices. In our best horse raising states, the combination of pasturage and winter food enable our breeders to keep their animals growing under the most satisfactory conditions the year around so that we can successfully compete with the rest of the world in the matter of breeding good stock. Foreigners are finding this out. Last year 1,400 horses were entered at Hamburg from a single Pennsylvania exporting firm, on which the transportation charges were over \$50,000, so it can be seen that good prices were realized to warrant such a payment. The Germans and

Belgians are using American horses more and more for drayage and breweries and even for pleasure driving, but Secretary Wilson believes that the most promising field is among army officers, who take special pride in the fine points of their horses.

The total number of horses exported last season was 288,883,725, valued at \$4,760,265. The prospects for 1898 favor a large increase in the number exported as well as in their value. For the two weeks ending April 9, there were shipped from Chicago 953 head, all for Europe. They were consigned to London, Liverpool, Glasgow, Antwerp, Brussels and Frankfurt. It is quite apparent that the American horse is winning the good opinions of those who use him abroad, whatever may be the antagonistic feeling with which he is regarded by European breeders. If he was not so useful he would not be regarded with so much jealousy.

HORSE GOSSIP.

Detroit is to have but one running meeting this year, that at Highland Park, June 7 to 23.

Hamburg has been withdrawn from the Kentucky Derby. He is to go to England if he stands training.

The mare Bethel, 2:16, which got Bob Kneeb into trouble with the German authorities, is to make her appearance on German tracks this season.

The horses of Germany cavalry regiments are to be shod with paper shoes, recent experiments as to their durability and lightness having proved very satisfactory.

The next regular meeting of the board of appeals of the American Trotting Association will be held at the Auditorium Hotel, Chicago, May 3, at 8 o'clock p. m.

In 1897 the value of stakes won in England, Ireland and Scotland amounted to \$2,503,130, which shows the great interest taken in the United Kingdom in the development of the thoroughbred.

In the Ullman Stakes, at Ingleside, Cal., Ace reduced the three-mile record for that track to 5:28½. The record for the United States is held by Drake Carter, made in 1884, at Sheephead Bay, 5:24.

The fastest race of the year was run over the Newport track, near Cincinnati, on Tuesday of last week, when the filly Imp, by imp. Wagner out of Fondling, ran a mile and fifty yards in 1:43 flat, making the first mile in 1:30, the three-quarters in 1:13½. She cut out her own pace from the start. This makes the best record for the distance, and will be a great card for her sire.

Since beating Ornament in the Montgomery Handicap, Salvable has won another race of a mile, beating such horses as Macy, Paul Kauvar, and Boanerges. Salvable carried the top weight, conceding four pounds to the second and third horses, and made the mile in 1:42¾. It really looks as if he is a good colt, and the best yet sired by Salvator, whose get have not amounted to much so far.

Heavy draft horses have sold at fair prices in Chicago the past week. Quite a number sold at \$150, and one quite large consignment ranged from \$125 to \$215 at auction. The big prices are paid for heavy animals, 1,700 lbs. and over. A gray gelding Percheron, 1,800 lbs., sold at \$200; a dapple bay Shire mare, 6 years old, well feathered on the legs, brought \$215. A fine coupe horse sold at auction for \$235. Common horses, however, still sell very low.

At a recent meeting of the directors of the Kentucky Trotting Horse Breeders' Association held at Lexington, Ky., it was decided to open up the usual number of stakes to be contested for at the twenty-sixth annual meeting in October, and Secretary Horace Wilson has announced the following, to be closed June 1: The Kentucky Futurity, for 3-year-old trotters, \$16,000. The Kentucky Futurity, 2-year-old division, \$5,000. The Futurity, for 2-year-old pacing division, \$1,000. The Transylvania, for 2:13 class trotters, \$5,000.

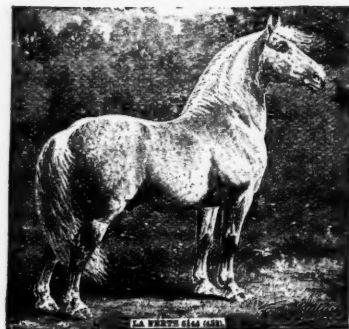
Ornament, the best three-year-old out last year, was beaten in the Montgomery Handicap at Memphis by Salvable, a son of the great Salvator. But Ornament carried 127 pounds, the top weight, while Salvable had only 108 pounds up. The distance was a mile and a sixteenth, and the time was 1:50½. Ornament was the contending horse all the way, and was only half a

length behind the winner. Buckvidere, Linda and Paul Kauvar also ran, but were unplaced. Since then Ornament has won a good race, and his owner still thinks he has the great stake horse of the year.

There will be no special congress of the National Trotting Association this year, so the new rules will be given a season's trial. President Johnston has been empowered to call a special congress next spring in case the rule changes are found detrimental to turf interests. Drivers this season will be compelled to take out licenses and to get them they will be forced to square up all back accounts with the various clubs of the National Association where any exist. Races may be held at less distances than one mile, but the Board has decided that time made in such races will constitute a bar under Rule No. 43. Hopples will be barred after this season unless a special congress orders otherwise.

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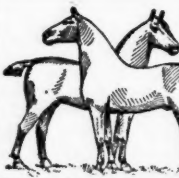
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MERINOS FOR MICHIGAN.

We examined some Merinos brought into the State recently by Mr. Enos Lovell, of Chihuahua, Kalamazoo Co. One was a ram from the flock of G. P. Martin, of New York, and sired by Champion, owned and bred by Peter Martin. This ram is barely medium in size, compactly built, low on the leg, good front, fair head, good back and loin, and an ideal fleece. It is nearly three inches long, beautifully crimped, the oil evenly distributed all over the body and the entire length of the staple, very dense, and covering the body well at all points. On the belly it is as long, dense, and of as high character as on the shoulder. He put us very much in mind of the Frank Barton sheep in form and fleece. Mr. Lovell said he bought him for his fleece. He has some large fine ewes, generally of Martin and Rich blood, with which he thinks this ram will cross to advantage. He said he would like him a little larger, but rather prefers a compact, medium sized sheep to an extra large one, as more typical of the breed. Mr. Lovell also purchased three young ewes of Clark blood, sired by a son of Adirondack, and he thinks of breeding them in line. These came from the Bottom flock of Vermont, and are very fine ewes. They have good size, splendid heads, and are pretty well styled up. They are also better woolled on the belly than many of this family of the Merino. The years of depression compelled Mr. Lovell to cull his flock closely, or rather allowed him to do so, and he now has about as useful a flock of breeding ewes as one could wish. He takes his cull ewes and breeds them to a Shropshire ram, and so makes them pay their way. Upon another farm recently purchased, and worked by a tenant, he has a fine flock of Shropshires, so he is in line whether wool or mutton is called for. But he is especially interested in the Merino and its development.

A NEW BREED OF SHEEP.

Wool growers are awaiting with interest the final results of the experiments which the Agricultural Department of the University of California is prosecuting with the idea of evolving from a cross of the Merino with the Persian a new and distinct type of sheep. The males of the Merino and the females of Persian are used. The object is to combine the advantages of a large fleece of fine quality with the ability to produce mutton of the best class from the same flock. The experiments so far are not sufficiently extensive to permit the announcement of definite results, but the indications are that the experiments will prove completely successful.

If a type of sheep which will produce wool comparing favorably in quantity, and at the same time will equal the South-down or some other mutton sheep in mutton production is produced, the California station will have accomplished one of the greatest successes in recent years in the improvement of domestic animals. It is true that this combination of wool and mutton is claimed for several breeds of sheep already in general use; but it is also true that when many of these breeds come to a final test they are lacking in one respect or the other. It seems difficult to get a breed of sheep that combines the wool producing and the mutton producing qualities to the highest degree, and consequently the final results of the above experiments will be awaited with interest by sheep breeders.—Farming.

The above has been floating around for some months, and found a place in many agricultural journals. It is simply another attempt to mongrelize the flocks of the country by inducing owners to use the product of this system of breeding. In the nature of things such breeding can do no good, and it will certainly do some harm. Backed by the University of California an experiment of this character is given an endorsement which will encourage flock owners to expect wonderful results. They will reason that the University would never have engaged in it without some certainty of attaining great results. And these tyros in all

that relates to the business propose to cross two entirely dissimilar breeds, and give to the flock owners of the country a sheep superior in form and fleece to those recognized breeds, whose superiority has been proved by many years of practical experience and the severest competition. Can the breeders of Great Britain and the United States, who for years have been studying this question of breeding, been blindly following the wrong road? We will never believe it until the proof is so strong that it cannot be gainsaid. These University experimenters are not more likely to succeed than the old alchemists who sought to transmute base metals into gold. They should be called off and put to work in some direction where no harm if but little good could come from their experiments. What is required is more careful breeding of the improved breeds, recognized as standard wherever sheep husbandry has been developed among civilized nations, not their mongrelizing by mixing them with unknown or worthless breeds.

LIVER FLUKE IN SHEEP.

The Bureau of Animal Industry has issued a pamphlet on the inspection of meats for animal parasites, and among others referred to are the flukes and tapeworms of cattle, sheep, and swine. As we are likely to have a considerable increase in the fluke this season because of large areas of low pasture lands being covered with water, we take from the pamphlet a description of the fluke, its peculiar development, and its ravages, with some suggestions as to how its attacks may be prevented.

The common liver fluke (*Fasciola hepatica*) is found in cattle, sheep, and swine, as well as in man. Its life history, as given by investigators, is very peculiar and complicated, for the adult parasite, instead of producing young similar to itself and capable of developing directly into adults in cattle, produces eggs which develop into organisms totally different from the adult form living a parasitic life in other animals. In scientific language, the parasite is subject to an alternation of generations, together with a change of hosts. The following summary of the life history will make this point clear:

The adult hermaphroditic worm fertilizes itself (although a cross fertilization of two individuals is not impossible) in the biliary passages of the liver, and produces a large number (estimated at 37,000 to 45,000) of eggs. The eggs escape from the uterus of the adult through the vulva, are carried to the intestines of the host with the bile, then pass through the intestines with the contents of the latter, and are expelled from the host with the faecal matter. Many of them become dried and then undergo no further development, but others are naturally dropped in the water in marshes, or, being dropped on dry ground, they are washed into the water by the rain, or are carried to a more favorable position by the feet of animals pasturing or passing through the fields. After a longer or shorter period of incubation, which varies with the temperature, a ciliated embryo (miracidium) is developed. Experiments have shown that as long as these eggs remain in the dark the miracidium will not escape from the eggshell; accordingly it will not escape during the night. When exposed to the light, however, or when suddenly brought into contact with cold water, the organism bursts the cap from the egg-shell, crawls through the opening, and becomes a free-swimming ciliated miracidium. As already stated, this organism is entirely different from its mother. Swimming around in the water the miracidium seeks out certain snails, which it immediately attacks. After becoming securely fastened to the snail, the parasites bore their way into the body of the snail and come to rest in the liver, or near the roof of the pallial cavity, etc.; the movements gradually cease, and we have before us the stage known as sporocyst. The germ cells existing in the posterior portion of the miracidium now develop into individuals of a third generation, known as rediae. The rediae escape from the sporocyst when the latter are from two weeks (in summer) to four weeks (in late fall) old. Upon leaving the body of the sporocyst they wander to the liver of the snail. The redia as well as the sporocyst, may be looked upon as a female organism, and in its body cavity are found a number of germ cells, which develop into the individuals of the next generation, known as cercariae. These organisms are quite similar to the adult parasites into

which they later develop. The cercaria leaves the redia through the birth opening, remains in the snail for a longer or shorter time, or passes out of the body of the snail and swims around in the water. After a time it attaches itself to a blade of grass or some other object, and forms a cyst around itself with material from the large glands, at the same time losing its tail. It now remains quiet until swallowed by some animal. Then, upon arriving in the stomach of a sheep, for instance—the cyst is destroyed, and the young parasite wanders through the gall ducts or, as some believe, through the portal veins to the liver, where it develops into the adult hermaphrodite.

From the above we see that this parasite runs through three generations. During this curious development, which lasts about 10 to 12 weeks, there is a constant increase in the number of individuals, for each sporocyst may give rise to several rediae, each redia to a larger number of cercariae, and each adult to an enormous number of eggs. The unusual fertility of the animal is necessary because of the complicated life history and the comparatively small chance any one egg has of completing the entire cycle.

This worm is one of the most important and dangerous parasites with which the stock raiser has to deal, since it produces a disease which often results in heavy loss of live stock, especially of sheep. Although it does not seem as yet to have caused any such serious epizootics in this country as have been reported in Europe, sweeping out or greatly retarding the livestock industry, we should not wait until such an occasion arises before we consider the importance of this subject. We know that *F. hepatica* is present in the country; furthermore, that it is common in some places (Texas and elsewhere), and we would do well to inquire into the injury which other countries have sustained as a warning that we must not totally ignore its presence among us.

The following are among the most important outbreaks recorded: Wernicke (1886) records that not less than 1,000,000 sheep died of fluke disease in the southerly provinces of Buenos Ayres during 1882; in 1886 more than 100,000 head died in Tandil during eight months. Youatt estimated the annual loss in Great Britain at 1,000,000 sheep. For 1879 and 1880, a loss of 3,000,000 head per year was estimated for England alone. During 1876, Slavonia lost 40 per cent of her cattle from distomatosis. In 1830, England lost 3,000,000 sheep from this disease, estimated at a value of \$20,000,000. In 1829 and 1830, 5,000 of the 25,000 cattle of Montmedy perished; in Verdun, 2,200 cattle and nearly 20,000 sheep, out of 20,000 cattle and 50,000 sheep, succumbed to the parasite.

The presence of these flukes in the liver of animals gives rise to a disease known under the various names of rot, liver-rot, rot-dropsy, fluke disease, aqueous cachexia, cachexia equosa verminosa, fascioliasis, distomatosis, etc. The term rot, as used by farmers and by some veterinarians, is an exceedingly broad one; in many parts of this country almost any disease of sheep is called rot. We have met nodular disease of the intestine and other diseases under this term. On this account it must not be supposed that every article on rot refers to liver-fluke disease.

There is no one special symptom which is characteristic of this disease and absent from all others; in fact liver-rot in its various stages might easily be mistaken for other parasitic

complaints. These symptoms are taken chiefly from sheep, but the same description applies in a general manner to the same disease in other animals: (Concluded next week.)

FLOCKS AND FLEECES.

Heavy sheep and lambs had a hard time of it the past week in all markets. For some reason importers were taking but few, and as handy weights are preferred for the home trade even at top prices, heavy lots were difficult to dispose of except at concessions in price. Some shippers to Buffalo must have lost considerable money on them.

Very little wool was purchased for the United States at the recent wool sales. This will help strengthen domestic fleeces. Just at present there is a lull in the market on account of the war scare and the appearance of some of the new clip. We don't think it will last long, and the market will be all the better for it later on.

The Wool and Cotton Reporter is doing what it can to break up the public sales at the New York Wool Exchange. Just the same, a system of public sales offers the fairest method of selling and buying wool, and the Reporter would be in better business advocating their inauguration in Boston than trying to break up those held in New York. And it would do so if it was as warm a friend of the wool-grower as it pretends to be.

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Grange Department.

Our Motto:—"The farmer is of more consequence than the farm, and should be first improved."

Address all correspondence for this department to
KENYON L. BUTTERFIELD,
AGRICULTURAL COLLEGE, - MICH.
News from Michigan Granges is especially solicited.

TAX LEGISLATION.

As our readers very well know by this time, no direct results were achieved in the extraordinary session of the legislature toward solving the question of taxation. None of the bills regarding railroad taxation passed. The proposal to appoint a commission to investigate the whole subject also failed. It cannot be said, however, that some good has not been accomplished, even though there is a great diversity of views among intelligent people as to the merits of the various plans proposed for increasing railroad taxation. There can be but little question as to the popularity of the movement. Interest in the session has been very great.

It certainly is true that not for many years has the attention of all the people in the State been so directed to the subject of tax reform as at the present time. Even the opponents of the particular measures introduced in the legislature admitted that they believed that reform in our tax laws is necessary, and committed themselves, without reserve, to the general proposition that our tax system is not just, and that it should be made just. Granting that these expressions were honest, we are able to say that the agitation has at least resulted in committing our entire people to a reasonable tax reform. This is worth something, and the Grange deserves to be congratulated for agitating this question until it occupies the foremost place in proposed state legislation.

The Grange position, while distinctively favorable to a large increase in railroad taxation, is much broader than that, and favors an investigation of the whole subject of taxation in Michigan, that it may be clearly shown where are the weak points in our whole system, what property escapes taxation, and to devise, if possible, a plan by which all citizens shall pay their just share and only that. This, in a nutshell, is the Grange position on the subject, and we are perfectly certain that nothing satisfactory in the line of tax reform will prevail until the Grange doctrine on the subject is accepted and followed.

GRANGE NEWS.

CLAYTON GRANGE, NO. 694.
April 2, instructed two candidates.
Genesee Co. GEO. W. BLOSS.
VERONA MILLS GRANGE, NO. 667.
April 3 conferred last two degrees, and had the usual feast and social time.
Huron Co. MRS. LAURA HUNT.
NEWARK GRANGE, NO. 514.
April 9 conferred first two degrees. We like the traveling library very much. Our meetings are once a week at the hall.
Gratiot Co. R. J. K.
BINGHAM GRANGE, NO. 702.
is in a very prosperous condition. Meetings are held every week. Are having a contest. All take active part.
Clinton Co. LECTURER.
BEE HIVE GRANGE
met April 1, with fair attendance. Report of the State Round-Up Farmers' Institute, at Agricultural College, was discussed.
Van Buren Co. V. H. RANDALL.
ELBRIDGE CENTER GRANGE, NO. 711.
April 2d had a good attendance and good program. Will confer first and second degrees next meeting. Grange growing steadily. Over 100 members.
Oceana Co. MILES BROWN.
BELLEVILLE GRANGE, NO. 331.
met April 8. There was an interesting paper read by Prof. McDermaid on the subject of "Taxation," which was discussed by some of the members.
Wayne Co. H. A. R.
NEWBERRY CENTER GRANGE, NO. 695.
As our hall was in use for other purposes we could not have our last regular meeting. The society contemplates buying a lot and building a hall in the near future.
Cass Co. ELLEN D. RUMSEY.
ALAIEDON GRANGE
met Saturday evening, April 2, for the first time since January. Attendance was small, but had a very interesting meeting, and quite a lively discussion on wire fence.
Ingham Co. M. E. HEDGES, Lecturer.

MADISON GRANGE
at its last meeting instructed a class in the third and fourth degrees. Eleven members of Palmyra Grange visited us on that occasion and we were glad to make their acquaintance.

Lenawee Co. E. W. ALLIS.
WILLIAMSTON GRANGE, NO. 115,
conferred the third and fourth degrees on one candidate April 6. After quotations were given a good program was carried out. The brothers discussed "When is the best time to sow clover seed?"

Ingham Co. MRS. A. J. WATSON.
UNION GRANGE, NO. 97.
April 5th the degree work required so much of the time that the literary work, aside from the usual quotations, a few impromptu remarks and a recitation by little Lynn Pippitt, was dispensed with.

Branch Co. F. ELLA KILBOURN.
CHARLOTTE GRANGE, NO. 67,
discussed "Uniform text books," and "Pure food laws" at last meeting. We believe in supporting the latter, especially as relating to the selling of impure mixtures or compounds in the imitation of butter or lard.

Eaton Co. CHAS. HOFFNER.
ALUMINA GRANGE, NO. 585.
April 9 the question of building a barn took up a good part of the lecturer's hour, so there was no question discussed. The purchasing agent, Bro. M. Thompson, has ordered a car load of plaster. We have one application.

Muskegon Co. MRS. DELL VIETS.
KALKASKA GRANGE
had a lively talk on various subjects April 9. Distributed flower seeds to the lady members and talked upon Grange co-operating in purchasing needed supplies. Find it profitable to the membership to do so, having filled two large orders this year.

Kalkaska Co. H. A. BARNARD.
HOPE GRANGE, NO. 678.
Owing to high water and bad roads we miss one meeting, but had a very good one the last night, and reinstated one member. Sent off quite a large order for goods. Our Grange does a good deal of trading with wholesale houses.

Huron Co. MRS. A. RAMSAY.
LIMECREEK GRANGE, NO. 712.
April 8, there were about 40 present. Two new names were presented after the business meeting. A good program was rendered, consisting of questions, "chip basket," and "Lime-creek Journal," edited each meeting by some member.

Lenawee Co. COR.
WOLF CREEK GRANGE, NO. 708.
April 2d conferred third and fourth degrees upon six candidates. A banquet followed. Decided to prepare a good program for our next meeting and after the usual routine of business is through to open the hall for all who wish to hear the exercises.

Lenawee Co. MRS. M. BRAZEE, Cor.
BELLEVILLE GRANGE, NO. 331.
March 25, two new members took the obligation, making nearly 75 members. Our Grange, though but recently reorganized, is in a flourishing condition. Literary programs good. Have been discussing the taxation bill, recently before the legislature, during last three meetings.

Wayne Co. COR.
SILVER LAKE GRANGE, NO. 624.
April 9 the question of adopting the circulating library in our Grange was discussed, nearly all present being in favor of its adoption, but it will not be decided until next meeting. Uniform text books were voted favorably upon.

Grand Traverse Co. MRS. RUTH DAVIS.
ELY GRANGE, NO. 727.
Owing to bad roads the Grange has failed to hold a meeting for some time until April 2d, when we had a fair attendance. The "Postal Savings Bank" was discussed, the majority of the members believing it to be practicable. A sugar social was arranged for, evening of April 8. Will discuss uniformity of text books at next meeting.

Emmet Co. FRANK MILES.
WAVERLY GRANGE, NO. 36.
April 9 the third and fourth degrees were conferred upon a class of seven, after which we had our feast. Have two applications. Voted to have a "Pig social" in two weeks. Expect Pomona to meet with us next May. Our Grange is in the most prosperous condition it has been for some time.

Van Buren Co. G. L. RICH.
NORTH BRANCH GRANGE, NO. 607.
Contest closed April 2d and umpire's report read. The contest was very close. Thirty-nine new and twenty reinstated members were brought in during the contest, twenty-five of whom were initiated in the third and fourth degrees the evening of April 8th. Had

a feast that evening, with an attendance of over one hundred.

Lapeer Co. H. S. B., Cor.
CLEON GRANGE.
Our hall presents a much better appearance since having added three dozen new chairs. April 9 seven took the third and fourth degrees, and were treated to warm sugar. We also received seven applications. We seem to be having a steady but sure growth, and by working very quietly we will soon be strong enough for war from any quarter.

Manistee Co. EVA READ.
ALBA GRANGE, NO. 716.
Contest closed March 29, winning side being 165 points ahead. It was voted to purchase a new, instead of a second-hand, organ. April 12 seven candidates were given third and fourth degrees, and refreshments were served. We now number nearly 60, and feel that we are advancing intellectually, socially, and financially.

Antrim Co. COR.
SOUTH BEDFORD LIBRARY CLUB OF CALHOUN COUNTY
was organized last winter, and meets every alternate Thursday evening at the home of one of its members. It has about ninety members. We have one of the traveling libraries, and at our meetings have quotations and other literary exercises. It may interest members of the Grange to know about this club and its work.

MATTIE E. FURNER.
MORENCI GRANGE, NO. 286,
meets every Saturday evening. At last meeting the question was, "Is the United States justified in its contemplated warfare against Spain?" Bro. Deyo gave a short history of the troubles in Cuba for the past three years, and thought interference is perfectly justifiable. We have a question box on the table all the time, and this adds much interest, suggesting many new topics for thought.

Lenawee Co. MRS. B. G. HOIG.
A NEW GRANGE.
The national deputy has organized a Grange here to be known as Littlefield Grange, with the following as leading officers: Master, A. A. Boyer; overseer, J. W. Bailey; secretary, G. L. Hicks, Jr., lecturer, M. Elma Worden. George Wait was appointed critic by the national deputy. The secretary was appointed to correspond for The Michigan Farmer.

SEC.
EASTPORT GRANGE.
March 31 had a very successful meeting, including some specially good music, which always adds to a meeting of this kind. We wish that all the farmers in our community would join the Grange, and at least give it a good trial; we believe they would think as much of it as we do. We now meet twice a month, and think this will help. We want all our members out at every meeting.

Antrim Co. W. J. OLMSTED.
FRUIT RIDGE GRANGE, NO. 276,
at the last meeting discussed the "Good roads" question. It was generally thought that the advantages to farmers arising from good roads are almost unlimited, and that pathmasters in common did not do their entire duty in working the roads.

A team from Fruit Ridge gave instructions in degree work at the last Pomona Grange held at Tecumseh, April 9, and was highly lauded for its proficient work.

J. W. A.
GROVE GRANGE, NO. 528,
meets every two weeks on Friday evening. Had a good turn out April 8. Hon. Joseph Jibbens was with us, and told us of the importance of co-operation among the farmers. Said if farmers did not hold together and stick up for their own rights no one else would. Each one should post himself in regard to the man who was put up for the legislature or for congress, and vote for no man who would not work for the interest of agriculture and the farmer, no matter as to party.

St. Clair Co. MRS. C. A. LEPIEN.
DANBY GRANGE
has for the past two winters held social meetings at the homes of the members, alternating with the regular meetings which are held fortnightly at the hall. Games and music serve to make the day pass pleasantly. After dinner a committee is appointed to look over the brother's stock and tools and report at the regular meeting. Outsiders have been invited and have entertained the Grange. We have gained several new members as a result.

Ionia Co. T. C. PRYER, Cor.
BENTON HARBOR GRANGE, NO. 122,
met at Bro. R. C. Thayer's, and after the Grange work proper was completed, an open session was held and

a literary program enjoyed. Had paper on "Co-operation," by F. M. Kelly, and "Current Events," by Bro. H. Merry. Questions on slips of paper handed each member by the lecturer were responded to and much general information gained.

Berrien Co. ORION GRANGE W. H. W.
enjoyed its annual maple sugar festival Saturday, April 2, and about 75 Patrons partook of the elegant repast. In the afternoon an excellent program was rendered. A resolution offered by Secretary J. Y. Clark, was adopted, indorsing the Pingree bill favoring equal taxation. A petition to rescind the order to raise box rents in the local postoffice was also drawn and signed. The regular meetings of Orion Grange are well attended and its members are up and doing.

Oakland Co. MRS. J. K. BURT, Cor.
WHITE OAK GRANGE, NO. 241,
closed an animated contest April 9. Some of the old members were reinstated, and quite a few new names added to our list. There's nothing like a contest to arouse an interest in the work, and to get out a good attendance.

The defeated side in the contest is to furnish a supper, and at the same meeting both sides are to combine and furnish a good program.

We had a warm sugar social, which was a decided success.

Ingham Co. MAE HASTINGS.
ROME GRANGE, NO. 203.
At our last meeting three new members were elected to membership, and nine more applications handed in. Mrs. L. S. Chase made and presented to the Grange nicely wrought spreads for all of the officers' tables. A talk on "What is the outlook for the beet sugar industry?" by Luther McRobert, brought out no decision. There was also a talk on "Economical farm fencing," by Frank Walworth. He concluded there was not much difference in the various patent wire fences now in the market.

Rome Grange now has eighty members enrolled and is steadily growing.

Lenawee Co. DORA L. DOWLING, Cor.
BOARDMAN VALLEY GRANGE.
March 23d had more than usual attendance. Members wishing to engage in raising beans made inquiries as to their effect on the soil, profitability, etc. Those present thought that by removing the roots beans are a soil exhauster. Also that average yield is about 20 bu. per acre and that they must be kept clean, well cultivated, and handled with care. The straw might be utilized in feeding sheep.

"The obligations of our government to interfere in behalf of Cuban independence" was then debated, resulting in a draw. The speakers are to change sides on the question at the next meeting.

Kalkaska Co. A. W. CARROLL.

WINDSOR GRANGE, NO. 619.
We think the contest has been of benefit to our Grange. Each wished to be on the winning side, therefore readily responded to their leaders' calls for help on the program. Considerable latent musical talent came to the surface during the contest. We hope the willingness to respond to the lecturer's invitations will continue. The ladies were the winners in the contest. The gentlemen accepted their defeat very gracefully, and furnished a feast, March 18, of biscuit and butter, pickles, and an abundance of warm sugar, the ladies not being required to render any assistance whatever in the work. After the feast came toasts.

Eaton Co. A. J.
ASHLAND GRANGE, NO. 545.
April 9, initiated. A letter was read asking our Grange to appoint a committee to send relief supplies to Cuba. Senator Proctor's report was also read. Our Grange thought it doubtful if, at present, they would get supplies even if sent.

"What should our Grange be in 1909?" was discussed. It was thought that our Grange could be of more benefit if it would lay aside a portion of our money to help brothers and sisters when in need. We are talking of having a play to start such a fund with.

Town election was held in our hall, and the ladies gave 10-cent dinner and supper, and secured over \$5.

Newaygo Co. MINNIE A. BRINK.
PALMYRA GRANGE, NO. 212.
April 1 third degree was conferred on two. During the quarter 35 new members have been received by application and reinstatement. A portion of the lecturer's hour was devoted to the study of parliamentary law. So much pleasure and profit were derived therefrom that it was decided to pur-

sue the study at our next meeting. Bro. M. T. Cole will take charge of the same.

Nine Granges in this section have united to form a district for the purpose of holding oratorical contests. Each Grange is to hold a local contest, the best contestant to be sent to the district.

I wish that the State might be divided into districts and this work taken up throughout the same, that we might eventually hold a State contest. Much interest is manifested here in the matter.

Lenawee Co. SMITH EVERETT.
GRATTAN GRANGE.

Things are lively up our way. A new co-operative creamery has just been completed at Grattan Center, and will open immediately. It has a capacity for handling the milk from 400 cows. We are also near the line of a surveyed electric road to go from Grand Rapids to Belding. We expect it will be of much benefit to us.

A series of union Grange meetings are being held in north Kent county, the last one being held with us, March 26. These meetings are very well attended.

It may interest some to know that our Grange was organized in 1873, December 23, and hence will soon be a quarter of a century old. We have a good hall and grounds, nice sheds for twenty teams, and a membership of 125 in good standing.

The north Kent county sheep-shearing festival was held April 2d at the barns of J. L. Randall, with dinner at our hall.

Kent Co. COR.

HOME GRANGE, NO. 129, very hospitably entertained the Calhoun Pomona Grange April 8. The beautiful roads and a perfect spring day called forth a large number of brothers and sisters. A sumptuous dinner was served. A fine program had been prepared. The first topic to be discussed was the "Essentials of Successful Farming." Brother Chidester thought one of the most essential things was the care of farm tools. So many times after a tool has been used it is left in the field, or perhaps drawn under a shade tree and left until wanted the next year.

The second topic for discussion, "If we are not what we ought to be, are we alone to blame," brought out some fine thoughts, the members all agreeing that the surroundings and circumstances had much to do with the building of character.

A well written paper on "The Grange as an educator," was given by Sister Lizzie Ewer.

Calhoun Co. MRS. CORA SUTHERLAND
REDFORD GRANGE, NO. 367.

Wayne County Pomona Grange met with us April 1. Afternoon and evening sessions were open. About ninety-five were present in the afternoon, and one hundred and fifty in the evening. The Subordinate Granges of Plymouth, Willow, Flat Rock, Ash, Farmington, and Pontiac were represented. We discussed, "Would it not be better for Farmers' Institutes to be held in two places rather than two days in one place?" Discussion was led by Mrs. Tuttle, of Plymouth, and was in favor of the proposed plan. (The coming winter Wayne county is entitled to five one-day Institutes in addition to the regular two-day county meeting.—Ed.)

"Does it pay to make money-making the chief aim?" Bro. Parish, of Ash Grange, said "No."

"Do farmers inform themselves on State and national affairs to their best interests?" Bro. V. Smith, of Willow Grange, argued "No."

Appropriate music and recitations interspersed the program, and a drama, entitled "Under the Laurels" was given.

Wayne Co. GEO. M. HOUK.

LENAAWEE COUNTY GRANGE met Thursday, April 7th, at Sutton's Opera House, Tecumseh. The forenoon session was addressed by Dr. Howell, of Macon Grange, Hollis Taylor of Tipton Grange, and Daniel Hall of Tecumseh Grange. After dinner Mrs. Mayo addressed the audience on the "Past and Present of the Grange," giving a resume of Grange history, growth, and improvement from the beginning of the Order to the present.

Ex-Gov. Luce followed with remarks on the present status of the Grange, and judging the future by the past and present, gave his idea of the probable trend of Grange work and advancement in the future. He expects to see members of the Order develop more than ever intellectually and socially, and predicted that the future Grange would be a model of ritualistic work.

Horace Holdridge, of Raisin Grange, had a paper on certain branches of Grange work, which was followed by a paper entitled "The Grange as an Educator," by Mrs. Langdon, of Adrian Grange. Rev. L. C. Chase, of Raisin Grange took for his subject "Co-operation," and made some stirring remarks.

Sister Emma Campbell, of Washtenaw county, who is a free and easy speaker, gave a characteristic address on "Grange Work and Customs." She thought the individual was hardly responsible for the age in which he lived, but for the future. Our acts influence the succeeding rather than the preceding or the present time. "You and I are more responsible for the twentieth than the nineteenth century." A goodly number of recitations and musical selections were interspersed throughout the program, and in the evening members of Fruit Ridge Grange exemplified the unwritten work of the Order.

YPSILANTI GRANGE, NO. 56.

April 2d adopted a resolution opposing the annexation of Hawaii. Sister Graves gave some hints about house-cleaning. Make meals simple, cook as much as convenient ahead of time, take one room at a time and finish it. Competent help in the house is a great factor, and call on the men for heavy work—handling piano, carpets and stoves.

Master H. D. Platt told his method of raising oats. Cultivates corn ground; does not plow. Works ground with disc harrow and drags it down. One of the greatest objections to this method on clay ground, he said, is that the ground gets too hard to follow with wheat.

Bro. N. C. Carpenter thought one liable to work the ground too wet and if it bakes down is too hard for oats to come through.

Bro. D. V. Harris don't want to raise oats; too exhaustive on sand. Bro. John McDougal favors broadcasting and harrowing in on sand.

A discussion of cattle feeding followed. Best grain ration: ground ear corn and oats, mixed with bran, and fed with roots. Barley meal was also considered favorably.

Washtenaw Co. CHAS. L. FOSTER, Sec.

CALHOUN POMONA

met at the home of Sister Ewer, in South Battle Creek, March 24. Bro. Chidester talked on "Windbreaks," advocating strongly a good protection for apple orchards especially. His orchard is protected by woods on the southwest and his apple crop has failed but twice. Winds take the moisture from the surface. Oak timber or Norway spruce is excellent protection, and should not be too near the orchard. Mr. Ewer favored full exposure for small fruits, and would set on high ground. In reply to a question, Bro. Chidester said the best fruit belt was on the lake shore, because the water acted as a windbreak, tempering the currents of air which pass over it; to prove this he stated that fruit could not be raised on the west shore.

Bro. Woodworth spoke in favor of "Free Rural Mail Delivery." We pay a two-cent postage on drop letters to help pay for city delivery, besides box rent. Farmers would use the mails more and be in more direct communication with the outside world. The benefits received would more than pay the extra tax. Bro. Chidester does not believe free delivery practicable at present, as the cost would be too great. He thinks that unless the system could be carried out in the more remote districts, it would be unjust to establish it elsewhere. Mr. Bucklin considered the estimate of cost too great. The two carriers at Climax receive \$25 per month, but several applicants for the positions will work for \$20, as only about four hours a day are required for the work. Bro. Manchester said the excessive charges made by the railroads would pay for free delivery. Bro. Minges did not believe daily papers would be of much benefit, as they are seldom reliable, and he preferred to depend on some other publication for news.

"What is Happiness, and How May It Be Obtained," was the subject of a paper by Sister Bessie Adams. Happiness is defined as the enjoyment of good. It is comparative, as relief from pain often affords happiness, and we also give the name to positive pleasure. It is impossible for a thoroughly selfish person to be happy. We must look up our skeletons and work for the good of others. Self-seeking never brings happiness but he who has

"Measured out life's little span
In love to God and love to man,
On earth hath tasted Heaven."
Battle Creek. LILLIAN ADAMS, Cor.



"What Shall a Man Give?"

The solemn question comes home to almost every man at some period in his career. "What will you give in exchange for your life?" It is like that other solemn question about the soul. Just as an honest man feels that nothing of earthly value can be weighed against his soul so a man who has one friend to love him knows that life is too precious to be bartered away for ambition, or money, or pride.

But men are slow to believe that overwork sometimes kills; a man hates to admit that his health ever needs any particular care. He feels miserable and "out of sorts" but tries to "bluff it off" until he gets flat on his back, unable to do a stroke of work. He becomes obliged to spend no end of money for doctors and even at that can hardly save his life.

How much more sensible, and in the end how much cheaper at the first signs of physical weakness to write to Dr. R. V. Pierce, chief consulting physician of the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y., and obtain, free of charge, the advice of a skilled and educated physician who has a wider reputation for the successful treatment of chronic diseases than any other physician in this country.

In a letter to Dr. Pierce, Mr. J. W. Britton, of Clinton, Dewitt Co., Ills., (P. O. Box 475), writes: "For over a year I was troubled with liver complaint. Had no appetite, could keep nothing on my stomach, and had severe pains in my stomach and bowels. I doctored with home remedies but did not obtain relief until a friend advised me to take Dr. Pierce's Golden Medical Discovery. I began taking it at once and after taking four bottles I think myself cured, as I can eat anything I want and my food never hurts me."

Dr. Pierce's Pleasant Pellets cure constipation. At all medicine stores.

A GREAT WAR BOOK.

One of the most noticeable books of the times is "Our Country in War and Our Relations With Foreign Nations," by Murat Halstead, the great war correspondent and editor, published by the National Educational Union, Chicago. It is a graphic review of our army, navy and coast defenses, our relations with Spain, Cuba and all foreign nations. It compares Spain and the United States, describes the Spanish army, navy and coast defenses, and tells of their strength and weakness. The history of Cuba is told in a vivid and interesting way. Perhaps no living man could write a book like this so well as Murat Halstead, whose wide experience as a journalist has peculiarly fitted him for this work. The book certainly contains the information the people now want.

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Save Yourself Unnecessary Work
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FIRST PRIZE DOG OR SHEEP POWER
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MORGANTOWN, PA., Jan. 31, 1898.
The Improved U. S. Separator and First Prize Dog Power that I bought of you are doing good work, and run quiet and easy. The sheep learned quickly, and now as soon as the door is opened, will go and get on the power. As soon as the milking is done, the skimming is done.



Send for circulars, containing hundreds of testimonials, telling of the gratifying results from using the Improved U. S. Separator.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Sheep Gained in Flesh.

CONWAY, MASS., April 30, 1897.
The No. 5 Improved U. S. Separator is doing all that we can ask of it, and we are very much pleased with it. It tests on an average .03 of 1 per cent, which we think is close enough for any separator to skim. It was reported when we first began to run it, that the sheep had to work too hard and would not stand it long, but he is not quite dead yet. After running it one month, he had gained 5 lbs. He now weighs 175 lbs. and runs it easily. J. C. NEWHALL & SON.

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BUY THE BENNETT STUMP PULLER
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Miscellaneous.

TWO BLACK BAGS.

A JEWELER'S STORY.

It was on the 29th of October, 1859, that I was returning to England, having taken the steamer at Dublin for Holyhead. Business had taken me to Ireland—I am a jeweler—and it had been necessary for me to visit a branch of my own firm in Dublin. I was bringing back certain valuable jewels which required resetting—diamonds of great value, and some other things of less importance, but still valuable.

I found all the passengers talking on one subject—the terrible and appalling wreck which had occurred only three days before, off Moelfra, on the Anglesea coast. No less than four hundred and forty-six lives were lost that night when the Royal Charter was totally wrecked. She was a screw steamer, commanded by Captain Taylor. A large sum of money—£700,000 or £800,000 in gold—was lost also, it was supposed; but I have since heard that some of the gold has been recovered. I am a silent man habitually, and the awe in the voices of my fellow-passengers struck me forcibly; but I had another reason, as will presently appear, in remembering my journey from Dublin to London on this occasion.

I carried the jewels which I have already mentioned in a small black hand-bag, and so long as I knew that it was safe I was free from care. Arriving at Holyhead, I took my seat in an empty first-class railway carriage. Just as the train was moving off, however, a gentleman suddenly got in. He sat down nearly opposite me, so I had a good opportunity of observing his appearance. I noticed that he was young, apparently not more than four-and-twenty; that he had a broad black band around his hat, and that on his face were traces of recent sorrow, almost, in fact, of agitation. He seemed relieved at having caught the train; and being, like myself, quite disinclined for conversation, our journey proceeded in silence.

My bag lay beside me, and quite under my eyes. I was tired after my crossing, and fell into a sort of doze. On waking, I instantly glanced at my bag. There it lay; quite safe. My companion, however, had moved his seat. We stopped at Chester, and here I thought I would get out and walk about a little, as we had ten minutes to wait. I took my bag, and got out. On my return to the train there was my companion, apparently asleep. I got into the carriage without disturbing him, and we continued our journey. At Crewe, our next stopping-place, he got out, and did not come back. I was very tired now, and fell into a sound sleep, with my hand holding the handle of my black bag. I did not wake until we reached London; then getting into the first hansom I saw, and still carrying my precious bag, of which I was heartily tired, I drove home. On my arrival, with a method which I suppose is habitual to a man in my trade, I instantly went to the safe in which I keep valuable jewels, unlocked it, and depositing my bag on a table, I opened it. Imagine my dismay at finding that, instead of my diamonds, it contained only some rusty bits of iron and wooden debris. My bag was gone; this other bag had been cleverly substituted for it; so cleverly, indeed, that even the weight, as well as the appearance, had been judged.

I put the affair into the hands of the police, after giving them exactly every particular as I have here written it. The bag was lost.

A year after the events narrated in the last chapter I was again traveling on the line which takes passengers to Holyhead. It was in the beginning of October, as well as I remember.

I traveled first-class, my usual custom when I have a long journey before me. During the year not a sign had been given of my missing bag, or the jewels, but I had not really despaired yet of recovering it and them, for I had a certain unaccountable feeling about the whole thing; that there was some mystery about it. I felt sure.

Regularly every Wednesday in every week I had called at Scotland Yard, and always had the same answer, "Nothing yet, sir." The reward I had offered was sufficient to secure a certain interest, and the police, I firmly believe, were as keen in the matter as I could wish.

On this October morning in 1860, I traveled with a lady who was in deep mourning. The day was chilly, and she wore several wraps, but getting warm in the carriage, she presently

threw aside a fur cloak she was wearing, and my eye was instantly attracted by a handsome brooch she had on, in which was a portrait.

Without appearing to do so, and with a sudden feeling of interest and curiosity for which I cannot account, I managed to get a nearer view of the portrait. It was the face of the young man who had traveled with me the year before when I lost my bag. I was so certain of this that I resolved not to continue my journey until I had acquainted the police with this fact.

The train stopped at Crewe, the place where I remembered the young man had left the train on our up journey the previous year. Here the lady alighted—I did also. A carriage awaited her at the station—I secured a fly, and directed the driver to follow the carriage. I discovered where the lady drove to. Her own house evidently. She appeared to be in an excellent position, and to be wealthy.

I was not deterred by this discovery, for I felt I could not be mistaken about a face which, though I had certainly noticed it only in a casual way at the time, had nevertheless been stamped upon my mind, and connected in such a manner with the loss to me of several thousands of pounds.

I went to the police station, told them what I had seen, and what my suspicions were. They listened attentively to what I said, then told me that I must be mistaken; that the lady in question was well-known, the widow of an officer who had died just after coming into a large property in the county. She had had two sons. One had been in the navy, and had lost his life in the wreck of the Royal Charter about a year previous. The other was expected home every day, and had been away almost ever since the end of last October.

It was impossible, they said, to make inquiries in such a direction. Ill-satisfied and disappointed, I found myself compelled to leave matters as they were; but on my return to London I wrote to the head of the police once more, and reiterated my convictions so forcibly that he evidently was impressed by what I said. The result of my letter came, after a brief acknowledgment from the inspector, in the visit of a gentleman four days afterwards.

I was standing in my shop; it was a dull morning in November, and the visitor who came in spoke first to my assistant, who referred him to me, and then in a moment I recognized my fellow-passenger. Not wishing to make everything quite public, I led the way to the inner room I reserved for myself, and handed the gentleman a chair. He was too excited to sit down, but began his story at once.

"You remember the day I traveled with you from Holyhead, sir?" said he.

"Perfectly," I replied. "I have too good reason to remember it."

"So have I. I had been on the Anglesea coast all the night before, searching for some relic, perhaps the body, of my drowned brother. I had only twenty-four hours, and was obliged to hurry back, with only a few bits of wood and iron gathered from the wreckage which strewed the beach; these I put into a small black bag."

"A black bag?" said I; "had you a black bag, too?"

"Listen," said the gentleman, "I saw that you had one, and I remarked that it was like mine—so much so that at Chester, where you got out and I did not, you may remember, you took my bag with you instead of your own. I felt sure you were coming back, for you had left your coat and umbrella in the carriage, so I did not follow you."

"Yes," said I, getting excited; "but that does not account—"

"Wait a moment," said the gentleman. "I know perfectly what you would say; it does not account for my not advertising your bag, or making some sort of a sign all this time—quite so—you will understand presently how it has happened."

I sat down, and begged him to do the same.

"When I got out at Crewe, I took as I supposed my bag. When I reached home I found that my poor mother, whom I had left in the most utter grief and prostration at my brother's death, had not rallied at all; I told our doctor, who was there, that my search for any personal relic of my brother had been fruitless, but that I had a few bits of iron and wood from the wreck."

"The doctor advised me to say nothing to her about it—not to tell her even that I had these sad relics. I put the bag just as it was into a cupboard in my own room and locked it up. That very day I had to leave England. I

had a business engagement which took me to Australia. If I broke the engagement it would have involved my mother in considerable pecuniary loss. She knew I had to go, and as she did not urge me to stay, and as my sister and her husband were with her and could take care of her, I left the house that very day, and journeyed back north to Liverpool, just in time to catch my steamer bound for Melbourne.

"I only returned yesterday morning. The first thing I heard after greeting my mother was 'Where is the bag you brought with you from Moelfra?'"

"In my room," I said.

"Get it for me," said she.

"Without another word, though I wondered how she had heard of it, I went to my room, unlocked the cupboard, found the bag just as I had left it, and took it down stairs."

"I was just going to open it when, to my still further surprise, my mother said: 'Are you quite sure that is your bag, Arthur?'"

"I looked at her in astonishment. 'Well, mother,' I said, 'I am as sure as a human being can be of anything.'"

"Did you open it after you came home, dear?" I thought for a moment, and then said, 'No, I am certain I did not. I could not bear it.'"

"Then," said my mother, 'be prepared for a surprise. I think you will

find that you have some one else's bag.'

I did not answer, for I was trying to unlock the bag. 'It is very odd,' I said, 'my key won't open it.'

"My mother rang the bell, and in walked the inspector."

Here my visitor ceased speaking, and walking hastily to the shop-door, he beckoned to some person seated in a hansom cab close by. It was my friend, the inspector of police at Crewe. He continued the story. But first he placed on the table my "black bag."

"There, sir," said he, "is your bag; you were quite right; this gentleman took it by mistake. That morning, when Mrs. — sent for me, I found the bag unopened. I forced the lock and found your name inside the bag. The contents are intact, as you will see."

I opened my safe, and before I would allow them to open my bag, I took his from the shelf, and placing it beside my own, we all three saw that in size, make, indeed, in weight, they exactly resembled each other.

Although I felt that I had really made the discovery myself, I cheerfully paid the inspector the check he deserved for the clever and prompt manner in which he must have conveyed my suspicion, a very awkward one, to Mrs. —.

FIBROID TUMOR CONQUERED.

Expelled by Lydia E. Pinkham's Vegetable Compound—Strong Statement from Mrs. B. A. Lombard.

One of the greatest triumphs of Lydia E. Pinkham's Vegetable Compound is the conquering of woman's dread enemy, Fibroid Tumor.

The growth of these tumors is so slow that frequently their presence is not suspected until they are far advanced.

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If you have mysterious pains, if there are indications of inflammation or displacement, don't wait for time to confirm your fears and go through the horrors of a hospital operation; secure Lydia E. Pinkham's Vegetable Compound right away and begin its use.

Mrs. Pinkham, of Lynn, Mass., will give you her advice free of all charge if you will write her about yourself. Your letter will be seen by women only, and you need have no hesitation about being perfectly frank.

Read what Mrs. B. A. LOMBARD, Box 71, Westdale, Mass., says:

"I have reason to think that I would not be here now if it had not been for Lydia E. Pinkham's Vegetable Compound. It cured me of a fibroid tumor in my womb. Doctors could do nothing for me, and they could not cure me at the hospital. I will tell you about it. I had been in my usual health, but had worked quite hard. When my monthly period came on I flowed very badly. The doctor gave me medicine, but it did me no good. He said the flow must be stopped if possible, and he must find the cause of my trouble. Upon examination he found there was a fibroid tumor in my womb, and gave me treatment without any benefit whatever. About that time a lady called on me and recommended Lydia E. Pinkham's Vegetable Compound; said she owed her life to it. I said I would try it, and did. Soon after the flow became more natural and regular. I still continued taking the Compound for some time. Then the doctor made an examination again, and found everything all right. The tumor had passed away, and that dull ache was gone."



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The Dairy.

We have a complete Dairy and Farm Creamery in constant operation on the Experiment Farm at Climax, Mich. This is personally conducted by J. H. Brown. All dairy correspondence should be sent to Climax, Mich.

For The Michigan Farmer.
IN AND OUT OF THE DAIRY BARN.

We always teach our young stock to lead in the winter season when there is plenty of snow on the ground; then the animal is not liable to get injured by falling. If the animal is large and strong two men can do the work much easier than one.

We use a half-inch rope thirty or forty feet in length, making an old fashioned tie loop in one end, so that when on, or in use, it will not choke the animal. After placing the rope around the neck make a half hitch around the nose, something resembling a halter, then "let 'er go."

A few desperate lunges will always be made but if held in subjection it will soon learn "who's boss," which is the first and hardest lesson to give.

A few solid posts in a yard about a foot high are of excellent value; then if the animal is getting the best end of the bargain the rope can be dropped over one of these posts (by having a loop made for the occasion), which will not only lessen the labor but hasten the work into perfection.

I find it a good plan to teach calves and colts to lead when quite young, for then they are easily managed and the lessons are never forgotten.

A MILKING STOOL.

The observing farmer is sure to come in contact with new ways, new implements, etc., when traveling through the country.

Some of the best methods and home-made implements are lying side by side in some of our farm homes, undiscovered to the community and unknown to the world.

Such a one was discovered at a neighbor's this winter by the writer. It is a milking stool. It is made with three or four short legs just as the user thinks most convenient. Directly on top of the stool is a small box, the top of the box forming the seat of the stool.

The lower board of the box extends out in front of the stool to place the milk pail on when milking. This not only keeps the under side of the pail free from particles of manure, which are sure to adhere to a pail when set directly on the floor, but raises the pail so that if the cow occasionally kicks she is not so liable to place her foot in the pail, upsetting the milk and one's temper, too. The box is to keep the dust cloth in.

With such a stool one can sit down to a cow, place the milk pail on his knee, reach the dust cloth, clean the udder, put the cloth in the box and when each cow's turn comes for milking the cloth is always within reach and without making any extra moves.

VENTILATION.

The proper ventilation in the cow stable is a difficult thing to regulate. Yet it is something every dairyman should look after, for on this hangs one of the keys to the door of success.

One may not know from the quantity or quality of milk that danger is near, but diseases are often traced to impure air, arising from air-tight cow stables. Cattle that are compelled to remain in such buildings almost the year through, or at least seven months of the year, day and night, breathing air over and over, are as sure to contract disease in some form as the sun is to make its daily appearance.

When the thermometer registers zero or lower, there are not many stables that require a very large opening for fresh air. But our winters have become so changeable that we have to regulate the warmth of our stables by ventilation, instead of fuel as we do in our houses.

Cattle that are being forced to their full capacity for milk-producing results require a lower temperature than those moderately fed. For instance, at the Agricultural College there is a cow that weighs about 2,000 pounds and gives her full weight in milk every twenty days. This cow (so it is claimed) has to be kept in a cold building, for the grain fed and consumed is so great that the feed generates so much heat that in the coldest of weather the cow actually sweats (on the nose), and if she was kept in a warm building undoubtedly she would not consume food enough to produce the 100 pounds of milk a day.

If it is true that a cow will consume more feed and give more milk in a cold stable than she will in a warm one, what is the use of going to such an expense of making our stables comfortable? Our old stable was cold in cold weather and our new one is warm whenever we close the windows and doors. The experience of each leads us to believe in the warm stable theory, if such it can be called.

Hillsdale Co., Mich. ELIAS F. BROWN.
(For breaking heifers and calves to lead, friend Brown's plan is good, when necessary. But we hate to have our barnyard dotted with posts a foot high for anchorage purposes. Such obstructions might incur damage to stock when exercising in the yard.)

Our calves are accustomed to handling, and even leading, almost from birth. When the heifers come into the dairy they are as easily milked the first time as almost any one of the old cows. In fact, the heifers are made such pets of by the children that they will sometimes "tag" one up when in the yard until some attention is paid to them.

The milking stool that you describe is similar to our own, one of which we illustrated by a sketch in this paper several years ago. Since that time we have seen scores of them, in as many cow stables, and users of various devices say there is nothing better, so far as simplicity in construction, comfort and practicability are concerned.

The matter of ventilation is of greater importance than many dairymen realize. Good warm stables are necessary, but ventilation should be so arranged that the temperature seldom goes above 55 degrees. Cows should go out every day when possible.—Ed.)

For The Michigan Farmer.

BUTTER-MAKING ON THE FARM.

Although much has been said and written on the above subject, yet there is always something to learn. Like the old sermons spoken of in The Farmer, it can be gone over and over again, and still something to be learned.

I lately received a letter from a friend in Missouri, with an essay on butter-making enclosed; and as it contains so many helpful points, I think it would be hiding our light under a bushel to lay it aside without giving others the benefit of it. It was written by Mr. and Mrs. G. B. Lamm, Sedalia, Missouri, and read before the Missouri State Dairy Association at Columbia, Mo., where it received the highest merit marks for "Making butter on the farm." In the experience given there are many points worthy of copying by those who seek the best methods. They say:

"We would like to tell you how good butter can be made on the dairy farms of Missouri. We think, after all, there is where the bulk of work and worry is done. There is where the improvements are so much needed and yet so seldom found. Whether the milk is taken to the factory or manufactured at home, from the little well-titled and intelligently-managed dairy farms, for years to come, will a constant supply of dairy products be required to meet the demand of town and country. The creameries are well equipped, but the Missouri farmer and his faithful wife need encouragement, and we want them to feel that this short treatise is especially for them.

"Its knowledge and the plans we give help us to make butter that scores high and merits compliments wherever shown, and what it does for us it will do for you. We give it as free as the mountain air and with it we wish we could send a blessing as beautiful as this bright day on which it is written to every noble-toiling dairyman in the state.

"To start with, we have Jerseys. These dairy cattle make milk rich in oily solids, providing they are well fed and kindly provided for. They are easily managed and give good returns for food consumed. If you do not have the blood in your herd, just try some as an experiment. Grade Jerseys in some cases prove quite satisfactory. Then again, we have shelter for our cows and their food. We think this is absolutely essential in winter time to secure good flavor and richness in the milk, without which it cannot be developed in the butter. Furthermore you cannot get the quantity without good, warm, comfortable surroundings and kind treatment. Strange as it may seem to some, although we have a fine, cool cellar, we never use it in making butter except to store a butter package in it occasionally.

"Our wind pump brings the water cool and clear; empties it into a galvanized iron vat, one-half as large as a double-sided wagon box. All the water for stock goes through this vat before going into the water trough. It is sunk into the ground one-half its depth and is encased in an outer wooden box with sawdust between vat and box. The vat has a light hinged lid like a trunk lid, made of old tin perforated on the side and ends to let the air pass through above the milk. A simple, cheap shed, open on the north, is built over this vat to protect it from the sun and rain. It sets under the shade of an apple tree and the whole arrangement cost about \$20. It has needed no repairs for twelve years, and has been in constant use.

"Into this vat, filled with water, is floated the long, slim, four-gallon cans of milk. We take these empty cans or setters to the barn and strain the milk in them as it is drawn from the cows, and, before cooling, we put them in the vat of water for the cream to rise. We milk with dry hands and use every little kindness to the cows to induce them to do their best.

"We skim our milk with a pressed tin dipper as soon as the cream rises, and in the summer keep it well stirred in a setter in the same vat with the milk until ready to churn. When the cream is ripe, and if necessary, we cool the cream with ice to about 60 to 65 degrees before we empty it into our barrel churn. The whole end of this churn can be removed as a lid and the churn turns endwise. We arranged to draw off with a faucet the buttermilk as soon as the butter forms in the shot-like lumps and will float on the buttermilk. Twice after the buttermilk is drawn off we pour on the butter, cool, clear water and let it raise the milk out of the butter. The butter is now ready to be sprinkled over with about one ounce of fine salt to the pound of butter. We partially turn the churn from side to side, the lid off, and then use the butter paddle a little to complete the work of mixing the salt in the butter, which we do while the butter is still in the churn. It is then taken out in a butter bowl in quantities to suit our customers and moulded into rolls. We then weigh it and wrap it in cheese cloth and keep it cool with ice until delivered to our customers. If shipped, it can be packed immediately from the churn into tubs. If over-salted or overworked, its delicate flavor is ruined, therefore, you will need to use your taste, smell and sight to guide you in butter-making more than to follow prescribed rules, for every home has different surroundings, and every dairy is composed of different individual cows and no set of rigid rules can be given to cover all the needs of each case.

"We seldom use coloring; our private customers do not demand it. We do not use the separator, because we sell a considerable of our milk while fresh. We have no silo because we raise fruit, not feed, on the farm and depend upon grain farmers for clover, hay, corn fodder and grain and upon the mill for the bran.

"Out of our best skimmed milk we make cottage cheese, which has an ever-increasing demand among our butter customers. The advantage of this way of making butter can be summed up as follows:

"(1). The least work in caring for the milk is required, as it never goes to the house, nor does it have to be packed down or upstairs, but the buoyancy of the water in the vat even helps you place it in the vat or lift it out easily. (2). After skimming the milk it goes to the calves, pigs or chickens. We carry it in the same setters as when strained. (3). The vat can be located near the house and the vessels for handling the milk are light and durable. (4). The milk is always out of the way. (5). The wind-pumped water does the separating while you are resting and also is always at hand plentiful for the cows and the many uses of the dairy. (6). You have not

half the scrubbing and washing to do, for if a little milk or water is spilt on the outside walk of stone, gravel or brick, the sun or rain or wind begins at once to remove it and no bad smell is met with—not so in a house or cellar.

"After studying several different plans we have but little reason to believe this method could be exchanged for any other except at a cost that the meager profits of the business do not now justify. Before we had these advantages, butter-making was a drudgery, but with them and other little conveniences not worthy of mention, it has lost much of its old-time sting.

"We do not consider it much hard work, but constantly, weeks days and Sundays, the dairy wants to be attended to in a cleanly and tasteful manner. There is no such thing as success in butter-making if the cows, milk or butter are slighted by the skillful hand of the dairyman or his wife.

"We are hopeful that through the influence of the press, the board of agriculture, the dairy association, and other agencies now at work, that the dairy interests will at last receive that honorable protection and encouragement which its importance so justly deserves."

JENNIE M. WILLSON.

A Leap in the Dark

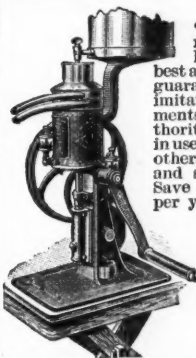


is always dangerous and to be avoided. The farmer or dairyman who buys an inferior separator takes a leap in the dark. Avoid all danger and possibility of error by buying a SHARPLES SEPARATOR. If for a few cows buy the SAFETY HAND SEPARATOR. If for more than a few cows buy the LITTLE GIANT SEPARATOR. In either event you get the best that your money will buy. They are made to save all the butter fat.

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DETROIT, SATURDAY, APRIL 23, 1898.

This paper is entered at the Detroit Postoffice as second class matter.

SECOND ANNUAL EXCURSION.

Our second annual excursion has been fixed for Monday, August 22. We make the announcement thus early so those of our readers who wish to be with us will not make other arrangements.

THE SITUATION.

Congress has passed, and President McKinley has signed, the resolutions agreed upon by the conference committee of the House and Senate, which read as follows:

Resolved, By the Senate and House of Representatives of the United States of America in Congress assembled,

1. That the people of the island of Cuba are, and of right ought to be, free and independent.

2. That it is the duty of the United States to demand, and the government of the United States does hereby demand, that the government of Spain at once relinquish its authority and government in the island of Cuba and withdraw its land and naval forces from Cuba and Cuban waters.

3. That the President of the United States be, and he hereby is, directed and empowered to use the entire land and naval forces of the United States and to call into the actual service of the United States the militia of the several states, to such an extent as may be necessary to carry these resolutions into effect.

4. That the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island except for the pacification thereof and asserts its determination when that is accomplished to leave the government and control of the island to its people.

These resolutions were cabled to Minister Woodford, at Madrid, to present to the Spanish foreign office; but before this could be done he was notified by the Spanish minister that in consequence of Congress passing and the President signing the above resolutions, Spain had decided to break off diplomatic relations with the United States, and handed him his passports. Minister Woodford has left for Paris. This is a virtual declaration of war. The Spanish minister has also left Washington, and all American consuls have been withdrawn from Cuba and Porto Rico. The embassy at Madrid, and the consulates at other points have been turned over to representatives of the British government, who will look after American interests for the present.

Meanwhile the navy is being put in

the best possible shape, and one squadron has already sailed, destination unknown. There will undoubtedly be a call for volunteers under a new bill just passed by Congress. Probably 100,000 men will be asked for. Five times that number can be enlisted in the next sixty days, if needed. A bill to increase the revenues of the government in this emergency is to be reported to Congress at once, and another one authorizing an issue of \$500,000,000 in bonds will also be brought in.

The regular army is being mobilized on the southern sea-coast, and it is believed a descent will be made upon Cuba as soon as sufficient men are ready, and proper arrangements made. That is the situation at this writing (Friday), and it presages an early commencement of the struggle.

WAR IS CERTAIN.

The action of Congress and the President renders war practically certain. It may be assumed that this government cannot recede from the position it has taken after due deliberation. It is equally certain that the Spanish government dare not accede to the demand that all claims to the island of Cuba be at once given up, and its army withdrawn. We say dare not, because we believe that were it to do so the Spanish people would break into open rebellion, and a revolution would surely follow which would put an end to the present government.

To this complexion has it come at last, and that it has the Spanish government has only itself to blame. One by one the magnificent colonies once controlled by that government have broken their allegiance and declared themselves free, until only Cuba and Porto Rico belong to a country that once controlled all South America, most of the West Indies, and a large part of the North American continent. This has been brought about by a system of robbery and tyranny which long ago proved Spain to be incapable of governing a colony, or even herself. In fact her government has always treated a colony as if its people had no rights, even that of living, except those allowed them by Spain. It is a history of robbery, murder, bigotry and frightful tyranny that marks every phase of Spanish rule on the western continent. It has become intolerable, and the people of the United States declare that it must exist no longer. That means war.

Many enthusiasts, confident in the strength of the country, think it will be quickly over. We hope so, but are doubtful. Wars generally last longer than expected, and the destruction of lives and property is always much greater than thought possible when it began. The people must be prepared for reverses as well as victories, for they will surely come. But that victory, final and complete, will surely come to the arms of the Union, we feel as certain as that the planets will hold their places in the firmament.

While war is a great calamity to any country, it has its compensations. It promotes patriotism, and develops strong men mentally and physically. It affords opportunities for the venal and dishonest to enrich themselves, it is true, but this is off-set by the sterling integrity it promotes among those who love and respect their country—and that comprises the great mass of citizens. War teaches self-denial and self-sacrifice to the young, and they are all the better for it, both as men and citizens. No government is strong that has not been tested by the ordeal of war, and war purifies and ennobles those who are most exposed to its trials and dangers. Blot out the wars of the past and there is no history. Without war there can be no patriot-

ism, because man is so constituted that what he has risked most for will always be most loved and respected. Blood cements nations and makes them stronger, and no nation worthy of the name has ever existed that did not owe its strength to the blood shed by its citizens in its defence. A nation that will not fight must sooner or later perish, and its place be taken by others, whose citizens will stand by it even in the face of death. War is the final arbiter of all disputes between nations, and will ever remain so until the world, or rather the nature of its inhabitants, is completely changed. Until this has been accomplished it is just as well for a nation to keep its army and navy strong and ready to fight. That is the true peace policy, and will accomplish more for the peace of a nation than the most accomplished diplomats or arbitrators. Self-respect is as much an element of strength in a nation as in an individual, and the nation incapable of protecting itself and its citizens when attacked cannot enjoy either the respect of its own people or of other nations. War, therefore, is not wholly bad. It develops man's greatest virtues, and strengthens the nation that wages it in a good cause. And we believe that we have a righteous cause in putting an end to rapine and murder in Cuba, and giving freedom to her oppressed and outraged people. It is a humane object that the war will be waged for, and not for national aggrandizement or the extension of the territories of the Union.

The war will also have its compensations in welding the sections of the Union more closely together, and uniting the sentiments of the people upon questions of national policy, and in encouraging patriotism among the younger generation. It will serve to divert the minds of the public from small questions, which only assume importance because there is nothing else to discuss. It should have the effect of making public men forget their petty jealousies and small personal ambitions and subordinate everything to the great cause of the nation, and it will do this except in a few instances where the sublime egotism of the man will lead him to think that the war is a hindrance to his schemes of personal ambition and revenge, and hence must be discouraged. Such men fear they will be forgotten and their merits overlooked in a struggle waged in the name of freedom and without hope of material advantages. The demagogue will still seek to stir up the people against the constituted authorities of the country, and in doing so will appeal to the most ignoble sentiments of humanity.

When a war is in progress is not a time for indecision or carping criticism, for assaults on constituted authorities, or unreasonable demands upon those who will have the conduct of the struggle in their hands. It will be a time when all jealousies and antagonisms, all personal ambitions and desire for personal gain, will be subordinated by the patriotic to the public good; and no man who refuses to do this is worthy of the confidence of the American people, or entitled to the high privilege of American citizenship.

The production of potatoes in Great Britain last year is estimated by the English Board of Agriculture at only 2,608,000 tons, as compared with 3,562,000 tons the previous year. This is the smallest crop produced in a number of years, and must exercise an important influence upon the demand for breadstuffs, as wheat and potatoes are always used to supplement each other by the masses of the people. The scarcity and comparatively high prices for potatoes is always reflected in an increased demand and higher values for wheat.

THE GOOD ROADS QUESTION IN A NEW FORM.

Gen. Stone, chief of the Good Roads Division of the Department of Agriculture, has, in behalf of the Department, made arrangements with an iron company for rolling special rails for more extended experiment in the use of steel trackways on wagon roads. Gen. Stone and the engineers of the iron companies have, after much discussion, agreed upon a plan which promises to meet the requirements. No wood is used in construction and no cross ties for support. The track consists of a simple inverted trough or channel for each wheel, with a slightly raised bead on the inside to guide the wheel, each channel resting on a bed of gravel, and the two tied together occasionally to prevent spreading. The experiment promises a step forward in the matter of improved roads, and the ability to readily market heavy loads at a minimum expense in power.

For a number of years Gen. Stone has been counselling the building of macadamized highways throughout the rural districts of the older states, and in some sections large sums of money have been expended in that direction. It is rather surprising to see him now experimenting with a system of roadways, which, if found feasible, would practically render the macadamized roads valueless. It only proves that the community which invests large sums of money in building highways on systems now thought to be perfect, may, and that within a few years, find they have made a great mistake. The development of transportation facilities is taking such unexpected lines, and the outcome is so much in doubt, that improvements of highways which call for large expenditures may well wait a little longer.

The success of the scheme noted above would nearly surely be followed by the replacing of horses with electric motors, because they could be run more cheaply, at much greater speed, and not tire out if the distance was considerable. In other words, it would practically amount to a trolley line for freighting purposes. We think that the development of electricity as a motive power in transportation is yet in its infancy, and that the future will likely see trolley cars transporting produce to market instead of farm wagons drawn by horses. In that case the macadamized highway would become as useless as the stage coach.

A VALUABLE DISINFECTANT AND GERMICIDE.

Professor Frederick G. Novy, of the medical department of the University of Michigan, has been conducting an important series of experiments for several months, to test the comparative values of ordinary sulphur fumigation and formalin. More than twenty-six trials in the disinfection of rooms have been made, and upon twenty different kinds of disease germs, 5,000 specimens of these being used in the experiments. The results have led Dr. Novy to conclude that sulphur fumigation as ordinarily practiced is incapable of destroying the germs of tuberculosis, and also spores of the germs such as those which produce anthrax and lockjaw. The sulphur fumes when wet will, however, destroy diphtheria and typhoid germs. Formalin, on the other hand, if wet, will destroy all kinds of organisms, including those of tuberculosis. If used dry, it exterminates most of the ordinary germs, such as those of diphtheria, glanders, cholera and pneumonia. A simple and very inexpensive apparatus has been devised by Professor Novy for disinfecting rooms

with formalin by distilling through the key-hole. Five fluid ounces of commercial formalin when distilled into a room are sufficient to disinfect each 1,000 cubic feet of air space in ten hours or less. The apparatus is effective in rooms of any size and as it works under the direct observation of the operator there is no danger from fire.

It is also announced from one of the Experiment Stations that formalin is the most certain of anything yet tried for killing the spores of smut in grain, the method pursued being simply to sprinkle the seed grain with a solution of formalin before sowing.

In view of the experiments alluded to above, the question naturally comes up, would not formalin prove a most valuable assistant to the fruit grower in his struggle against insect pests, parasites, and fungoid diseases of fruit trees. We believe it would, and suggest to the experiment stations at Lansing and South Haven that it be thoroughly tested the coming season.

APPEARANCES ARE OFTEN DECEPTIVE.

A Chicago agricultural journal recently commented upon a report of the bureau of industrial statistics of Nebraska, which showed a large addition to the number of chattel mortgages in that state, and declared it to be "alarming." A correspondent, replying to the article, said the statement and inference drawn were misleading, and gave the following explanation of the apparent unthrifty condition of the people of that state:

"The thousands of cattle and sheep that are fed in Nebraska are all bought on six months' time, a chattel mortgage being given on the cattle and corn the farmer has to secure the payment. For example, I have a neighbor who owns 160 acres of land; he had 6,000 bushels of corn and 150 hogs; he bought 400 western steers for about \$17,000, giving security on the steers, corn and hogs, which is the only way he could possibly do that amount of business. Within the next 60 days these cattle will be shipped to market, sold, and the mortgage discharged. All the land and personal property this man owns would not sell for more than one-third of what he paid for the steers, yet our bankers and commission men consider this number one paper and will loan any man that's a hustler and has a good reputation all the money he wants for feeding cattle and sheep, giving him a chance to market not only his own corn and hay on foot, but thousands of bushels of his fellow farmers."

The statements of this correspondent are borne out by a paragraph in a paper published at San Angelo, Texas, which recently said:

"The number of chattel mortgages that are being filed in the Tom Green county clerk's office, and the large amounts which they cover, indicate that there is plenty of money to advance on cattle and unlimited faith in the future of the business."

These chattel mortgages, therefore, instead of representing poverty and debt, really indicate thrift, enterprise, and business cussness, the exact opposite of what the Chicago journal thought they did.

By the way, it will be noted in the above paragraphs that the man with money to loan is not regarded as an enemy to those who have but little and are striving to better their condition. The honest hard-working man can get all the money he requires in his business, and is thus enabled to carry it on upon a scale which would have been impossible without the aid of additional capital. The result is the money lender gets his interest, and finally his principal, while the borrower, from the increased profits resulting from the employment of more capital, is enabled to pay his debts, and place himself in an independent position financially. Neither capital

nor labor could have accomplished this alone. It required their combination, and it must always be through their combination that the greatest success can be attained.

We have received several answers to the query in the article on bond issues. One says that the writer is not in favor of issuing bonds in any event, as greenbacks would answer the purpose; but if they have to be issued he would indorse the plan suggested in The Farmer. The others favor the plan. One of them, M. N. Edgerton, of St. Clair County, says:

I think your idea of a bond issue a good one, and I also believe that American patriotism would stand by the government if it saw fit to make such an issue of bonds. I also agree with the position you have taken on the Cuban question as expressed in your editorials. I do not believe in "peace at any price." I think the honor of our government should be upheld, even at the price of blood, and it will be; but that is no reason why our government should rush into a war! A resort to arms should only be made after every other means has failed. The fellows who are the fastest for bloodshed will be the very ones who will not be "in it" if such a crisis should come—which we sincerely hope will not.

The Executive Committee of the State Agricultural Society met on Tuesday last and fixed the dates for holding the next fair of the Society on September 26 to 30 inclusive. The fair will be held at Grand Rapids, and the citizens of that place have raised a guarantee fund of \$2,500.

NEWS SUMMARY.

Michigan.

It is estimated that the total cost of the recent special session of the legislature will reach \$40,000.

The creamery at Litchfield has paid dividends amounting to 20 per cent to its stockholders during the past six months.

Wayland is to have a pickle factory, contracts having been made with the farmers of the vicinity for enough cucumbers to assure the success of the venture.

The Estey Carriage Works at Owosso were destroyed by fire on Friday of last week. The loss on buildings and contents will aggregate \$35,000 to \$40,000 with insurance of \$25,000. The works had been running full time, employing fifty men.

The Elliott Button Fastener Co., of Grand Rapids, has filed a mortgage of \$50,000 for the purpose of securing the privilege of issuing that amount of bonds, the proceeds from which are to be used in paying floating debts and in enlarging the company's plant.

A Kalamazoo man has ordered 500 pounds of sugar beet seed and announces that he will furnish it to farmers of that section at the wholesale price of 15 cents per pound if taken in quantities of five pounds or more. It is expected that farmers will embrace this opportunity for making a test of this new crop each for himself.

State Superintendent of Public Instruction Hammond, calls the attention of the public, in a circular letter issued recently, to the fact that by a law passed in 1897 it is the duty of the school boards of the State to submit to the electors of their districts at the annual meeting the question of the adoption of free text books. The proposition requires a majority vote. The question of uniform text books will also come up.

General.

For the encouragement of the beet-sugar industry the Illinois State Board of Agriculture at Springfield has offered premiums for the exhibit of sugar beets at the state fair.

At Denver, Col., Edward Bellamy, the author, who went to that city for his health some weeks ago, has grown worse and is now confined to his bed by consumption. No immediate danger of his demise is feared, but his recovery is impossible.

A dust explosion in the Hoosac tunnel grain elevator at Charleston, Mass., which was followed by fire, destroyed that structure and 400,000 bushels of wheat belonging to Leiter awaiting shipment to Europe. Loss \$600,000.

Gen. Lew Wallace, the famous soldier, diplomat and novelist, who was 71 years old April 10, has formally withdrawn from the race for the United States Senate, and announced that he will enter the army and fight for Cuban independence.

E. W. Parker, statistician of the United States geological survey, states that the total output of coal in the United States in 1897 amounted, approximately, to 198,250,000 tons. The aggregate value was \$198,100,000. The amount of the product in 1897 exceeded any previous record. Yet the average value per ton was the lowest ever known.

Latest reports from the flooded district at Shawneetown, Ill., indicate that about 40 lives were lost in that dreadful disaster, and about 1,200 persons were rendered destitute. Camps have been established for the homeless, and it is believed that fully a month will elapse before other accommodations can be provided. Contributions in the shape of provisions and money are being forwarded in sufficient quantities to furnish temporary relief to the sufferers. The loss outside of the levee, railroad and public improvements is officially given as \$500,000.

Legal Department.

CONDUCTED BY EARL D. BABST,
56 Moffat Building, Detroit.

Cannot draw blood out of a turnip.—H. C., Sumner, Mich.—I would like to have you continue your answer to F. R., of Owosso, Mich., a little farther and tell how one would collect damages from a man that has no property except the fowls, which are not worth as much as the property destroyed. Has a man no redress under such circumstances?—No.

Husband gains no lien on a wife's separate estate by paying taxes levied on same.—R. S. M., Mich.—A marries a widow owning a farm which adjoins the one occupied by him. This farm A has had assessed as his own and has paid the taxes and taken the receipts therefor for twenty years in his own name, hers never having once appeared upon the assessment roll, nor has she received any income from the property. Does this give A any legal claim upon his wife's farm?—No, except as it might be made basis for claim of money paid on account of her private property. Wife's title is not affected.

Use of Barbed Wire in Fence.—P. A., Meridian, Mich.—Have I the legal right to build a barbed wire fence for a line fence, when the adjoining owner is opposed to it? If my neighbor's stock is injured by the fence am I liable for damages?—Our statute was framed before barbed wire was known as a fence material, and the question has never been raised in our courts, but in our opinion its use is so extensive and its utility so well founded that the courts of this state, following decisions of other states, will sanction its use as a legal fence material should the question ever be raised. In our opinion barbed wire may be used, and no damage collected because of its use, except such as may have been occasioned by careless construction.

Abating a nuisance on private property.—C. W., Romeo, Mich.—A rented pasture from B for the season of '96. During the winter of '96-'97 A dumped 13 skinned dead horses in a pile on the pasture. B did not rent the field in '97. During the winter of '97-'98 there were more dead horses dumped on the field by an unknown party. B is requested to move the horses from the surface by C, an adjoining neighbor. B, whose pasture is one-half mile from the highway, refuses to remove the dead animals. How can he be compelled to?—Make complaint to township board, which is the board of health and has full authority to compel B to abate the nuisance within 24 hours, or forfeit \$100, and may afterwards order the source of filth to be removed at B's expense.

Obstructing the highway.—H. E. E., Gaines, Mich.—Where there is a town ditch running alongside the highway, can a man throw down chunks of wood to keep people from driving down in the ditch or on the grass by the roadside?—No. The drain is lawfully in the highway, and people going along the same do so at the ordinary risk of the danger of travel. A private individual placing a block in the highway would be liable for any damages resulting, and moreover he has no legal right to take on his own shoulders the protection of the traveling public; for, though his motives are doubtless good, yet the very means of good may be the occasion of disaster. For people may be thrown into the ditch by the blocks, when but for their presence the disaster would have been averted.

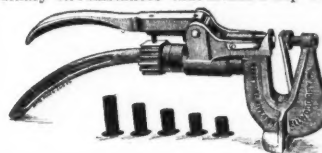
Liability for subscription when newspaper has been received.—N. D., Hillsdale, Mich.—Two parties subscribe for the N. Y. V. in December, 1892, in this way: "Find enclosed \$1.00 for which send the paper one year to my address." They have continued to send the paper until now, and have threatened to sue unless paid for. One of the parties wrote to them in January, 1894, and also in February, 1896, asking them to stop the paper and he would pay up all arrearages. They did not do so, but continued to send the paper and also the present threat to collect. What are my rights?—You will be compelled to pay for paper as long as you take it from the office or receive it. Notice to stop subscription is not sufficient. Same principle of law illustrated by liability of person receiving a pound of coffee every day for a year, although he may have stopped the order, yet receiving the coffee he is liable for its payment. The advantage taken of this principle of law by cheap

newspapers and periodicals is a source of great regret to journals of upright business methods. Subscription to Farmer ceases absolutely on termination of subscription year, and is not sent afterwards unless renewed.

Services of Stallion—Protection by lien.—Reader, Goodland, Mich.—A sells a mare to B. At time of sale nothing was said about the mare being with foal. After purchase the mare had a colt. Who pays for service of the stallion?—The owner of stallion may treat the obligation for services of stallion as a personal one, and collect by suit or otherwise from owner of mare at time of service. In addition the owner or keeper of a stallion has, after demand upon the owner of the mare for the price agreed upon for service, a lien on the get of such stallion for six months after the birth of the foal for the payment of the service. No benefit of a lien can be had where the owner or keeper has in any way fraudulently misrepresented to the owner of the dam as to the breeding of the stallion. The owner or keeper of the stallion, in order to obtain and perfect such lien shall, at any time after such demand and within the period included between the rendition of such service and when the colt is foaled, file with the township clerk in the township wherein the dam is owned, the agreement, or a true copy thereof, entered into by the owner of the dam for such service, together with such description of the dam as to age, color, or other marks, as the person filing such agreement is able to give. Upon the filing of the agreement, the same operates in all respects as a chattel mortgage during the six months after the birth of the foal, and lien thus created may be collected, enforced and discharged the same as a chattel mortgage.

The Keystone Riveter.

It always happens that when the farmer is busiest then is the time that his harness always breaks. A buckle comes loose, a brace splits or tears, or the keeper is torn from its place. Under ordinary circumstances that means a trip to the



harness makers for repairs, but the Hartman Mfg. Co., has put into the hands of the farmers a little machine called the Keystone Riveter with which he can repair his harness as easily as he can nail a loose board on the fence. The above cut shows the general shape of it. Any one who is interested in this low priced little machine can get a circular by sending to the Hartman Mfg. Co., of Ellwood City, Pa.

A New Coating for Cheese.

Cheese makers and cheese dealers are very much interested in the new art of coating for cheese known as Excelsior Cheese Coating. Its use has been followed by excellent results in preserving the cheese, retaining its flavor and weight, and keeping out all the enemies that attack good cheese. A free sample of Excelsior Cheese Coating with particulars concerning its nature and use will be sent to any one who writes to the Specialty Department of the Standard Oil Company, 408 W. 14th St., N. Y.

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Percale Wrappers.

Dear Lady:—Are you troubled to find the correct style and fit in a Percale Wrapper? If so, ask your retailer for the Triton Wrapper, or send us one dollar and we will deliver to you any where in the U. S. one garment like cut, guaranteed to please or return your money. Give bust measure, length of skirt, and state light or dark color. Strong, Lee & Company, Detroit, Mich., Mfrs. Triton Wrappers.

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begins with good wheels. Unless the wheels are good the wagon is a failure. IF YOU BUY THE ELECTRIC STEEL WHEEL made to fit any wagon your wagon will always have good wheels. Can't dry out or rot. No loose tires. Any height, any width tire. Catalog free. **ELECTRIC WHEEL CO.,** Box 58, QUINCY, ILL.

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SPRAYER, the wonderful bug exterminator; works easily, in fact makes a hard job a pleasure. Weighs only 1 lb. Reduces cost of spraying to almost nothing. Sells at sight. Thousands will want this year. Write at once and secure the Agency. Big Profit. Sample sent by mail post paid, 75 cents. Address, **HUNTINGTON & PAGE, Seedsmen, 136 & 138 E. Market Street Indianapolis, Indiana.**

1000 MACHINES AT SPECIAL PRICES FOR 90 DAYS. Everything new. Mowers, Rakes, Hay Tedders, Cultivators, Sowing Machines, Hay Presses, Plows, etc. Special inducements to farmers where we have no agents. Order before machine is wanted for use. Order at once or you may be too late. Address **Ann Arbor Agricultural Co.,** Ann Arbor, Mich.

STEEL DRAC KEEL.
The only successful attachment that will keep the drag firm and direct in its course. Can be quickly and easily attached to any float drag or harrow and will hold it in position so that every tooth will work alike. Made of 1/2 in. steel plate, and any part found defective will be replaced free. Circulars free. No farmer can afford to be without one. Address **S. P. BROUARD, Marshall, Mich.**

EARLY SEED POTATOES FOR SALE.
Write Quick for Prices and Particulars.
Money Saved on Tools of all kinds.
B. F. FOSTER, Allegan, Mich.

The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. The invitation is general, and we hope to see it accepted by many. Address all letters for The Household to Mrs. Ella E. Rockwood, Flint, Mich.

A SURE REWARD.

O weary heart, that toiled on
With steadfast purpose day by day
To do the right, though all alone,
Be not disheartened in the way.

Though there should come the fiercest
strife
In battles long to try my soul,
Yet falter not at this, thy life,
But still press on to reach the goal.

Let faith and joy be thine alway,
And shrink not back in fear from pain;
God's Holy Word doth truly say
Thy labor shall not be in vain.
LILLIE E. ROGERS.

HOME CHATS WITH FARMERS' WIVES.

THE FARMER'S GARDEN.

It will soon be time to make garden, for of course every farmhouse should be provided with this very important adjunct of the commissary department. No well regulated household can be successfully and economically managed without one.

Along with a good many other good things it has always fallen to my lot to have a well filled and well cultivated garden to draw on at all seasons of the year. Even now we are enjoying the last of it in the shape of cabbage, firm and nice, salsify, or vegetable oyster, and parsnips. From the time of early radishes on, we are never without something fresh and green to eat, and I don't see how I could get along cooking for a big family without it. And it is so healthy, too.

At one of our institutes last winter one farmer's wife told how she saved herself a good deal of baking in hot weather. She had a good garden and with a variety of fruits and vegetables the family did not miss the pastry, in fact, were better off without it.

The men folks ought not only to make the garden, but to take care of it. I know there are some women who delight in doing such work, and for those who do it is all well enough, but let the men understand that whatever help they may get in that direction is to be voluntary, and not to be depended on. There are plenty of opportunities for the hired man to hoe in the garden at odd times, if only a few minutes now and then, and if properly arranged, most of the work of cultivation may be done with a horse.

If you have not heretofore tried it, adopt the new plan of laying out the garden in rows instead of beds. The latter way is far more troublesome, as it necessitates all hand work. Make long rows of all vegetables, clear across the garden plot, and have the rows far enough apart to allow a horse and cultivator to pass between.

Besides the early radishes, which, by the way, should be sown at different times so as to insure a succession, there should be lettuce, peas, beets, onions, wax beans, sweet corn of late and early varieties, salsify and parsnips for next spring's use and plenty of tomatoes and melons. It doesn't pay to grow the tomato plants at home when nice, large plants can be bought so cheaply. The same may be said of early cabbage. The later sorts may be sown in the open ground and will mature in time for winter storage.

Both musk and watermelons should be grown in every garden. They are so rich and delicious; a delicacy that suits almost every palate. Children, especially, are always fond of watermelons, and I have never known them to make anybody sick, no matter how freely indulged in. Melons are a help out at the table many times.

Then in planting the garden don't forget to put in a few rows of popcorn. Put this far enough away so there will be no danger that it will "mix" with another kind. Popping corn makes lots of fun winter evenings, and the snowy kernels go nicely along with those fine winter apples that we are going to have this year.

Perhaps there are other varieties of vegetables which ought to have been mentioned, but each family can make out a list to suit themselves. The

varieties are not so important, but have a garden anyway; you may plant what you like in it.

CONTENTED ON A FARM.

In The Farmer of March 26 was an article entitled "Wives Wanted, but Not the New Woman." Of course, the writer was a man. He challenges any girl who is "enamored" of farm life to say so through the Household.

I live on a farm, and I like it, too. We have a pleasant home, near neighbors, boys to bring in the wood, and all the water brought right to the kitchen in pipes from the windmill. What better off would we be in town? We have a large family to cook for, but it is all our own, there is no hired help, and I don't see how it makes any less work to live in town, for we should probably eat just as much. With all the conveniences which one may have, if she wants them, I see no reason for any woman rising in an Institute or other meeting and saying, "I never want my daughters to drudge on the farm." What is the matter with the girls in Grand Traverse region? or what is the matter with those bachelors, that they must farm it without a wife or not at all? I think the young farmers and old ones, too, do not have that trouble in Oakland county. Only last week a young, intelligent, educated couple were married here. They expect to work his father's farm and the old folks will go to town. The farmer boys are just as good as the town or city boys, and who cares if they are not all "doctors, lawyers and ministers?"

At a recent farmers' meeting which I attended, some of the town ladies (they very much like to attend these meetings) said the farmers' wives had an easier time than they did, and the one most emphatic in saying this was a doctor's wife.

I think the cause for anxiety is all in Grand Traverse county. I am not a farmer's wife, but I may be some day. Oakland Co. G. E.

ANOTHER COUNTRY LOVER.

Since Mr. Voorhees so greatly desires to hear from a girl who prefers farm to city life, I am glad to speak. If he will come to southern Michigan I can show him so bright an array that I feel sure he would be convinced that the case is not so desperate after all.

I wish you might have heard a bright lassie of my acquaintance declare in most positive accents, "I'm a country girl, and I'm proud of it." A nearly completed high school course has only strengthened her love for a country life with all the privileges it brings in its train. Certainly, there has been a wonderful change in our social life—for which let us be thankful. While I honor the men and women who so bravely faced danger and privation of which we of a later generation can know but little; while I give them the credit for having placed our Michigan in the front rank among the States, yet no one can claim that the social conditions of those days were preferable to our own. It was for this that the pioneers toiled—that to their posterity might come the social and educational advantages denied to them.

Mr. Voorhees wonders why the girls do not want to stay on the farm, and at the same time complains that the long winters on a farm are "insufferably dull." Oh, consistency, thy name is—well, not always woman!

When I hear, as I often do, this murmur against the dullness of country life, I inwardly question, "what have you done to make it otherwise?" As far as my experience and observation go, I believe our social life may compare favorably with that in the cities, and in some respects will be found superior. Of course, we cannot bring the expensive lectures and concerts into the country, but they are worth driving a long distance, if necessary, to hear, and as for the ordinary cheap entertainments, I would not exchange one day in a Grange hall for a whole winter of them.

That mother who "did not want her daughter to drudge as she had done," has my sympathy. No doubt she fully realized what she had missed, but what she probably did not realize was that her sacrifice was needless. With the opportunity to form Granges and Farmers' Clubs, Women's Clubs, and kindred organizations, with the great work among the children waiting to be done, with reading circles and singing classes and, above all, the great world of books, wherein we may find entertainment and instruction without end,

upon our own heads be it if we find country life dull.

V. I. M.

CORRECTING WRONG IMPRESSIONS.

The words of censure called forth by my former letter to the Household make it seem necessary for me to write again to correct any wrong impressions that may have been given by my little article of February 26th about "Stuck-Up People." When I penned those lines I realized full well that one side of the question received the greater attention. My object was simply to drop a few seed thoughts that might perchance fall into some good and honest heart and grow and bear fruit in helping some dear sister to take a broader view of life, and so rise to a higher plane of living. Let me whisper in Minta's ear, what I suggested is my own plan of life.

Most truly do I think it the duty of all who are blessed with superior advantages to do what they can to help others less favored. And the opportunities are so many! There are so many over-burdened ones; so many aching hearts are longing for a loving sympathy. It is, indeed, a privilege to be able to give even a cup of cold water to the least of these. The recipient of a kindness is not the only one benefited, either; the one who extends the helping hand often receives as much as he gives.

Before closing I would like to add a few words of praise, to those already given, of the recent Round-up Farmers' Institute at M. A. C. Although not there myself I know some who were, and they all speak enthusiastically of its helpfulness. One woman said with shining eyes: "I am so glad I went; the ladies said so many good things." These good and capable women—the institute workers—have the heartiest sympathy of

ELIZABETH.

AN ANGEL'S VISIT.

I believe we farmers' wives appreciated the World's Fair more than any other class of people, for so few pleasures come within our range. Many times now when tired in body, and tired of all the endless routine of monotonous work, I sit down and with closed eyes, I am once again, in memory, on those beautiful grounds, with a bit of every clime, a little representative of every country around me. It rests me. I love to think how many of my own acquaintances, weary housewives and mothers, found recreation and food for thought in the White City. We women were there to see the beautiful.

I recollect meeting a farmer's wife in the Art building. She said: "I enjoy the pictures but my husband just puts his hands in his pockets and strides through these rooms with scarcely a glance, and when we reach the outer door, says, 'Come on, let's go and see the Jersey cows!'"

I don't want to find fault with men. Elberta, for they are every whit as good as women, but what faults I do find are these: One is perversity, the other, they lack patience.

But all men who visited the World's

Fair were not like the one I have mentioned. One morning as I was sitting in the Austrian building, silently enjoying the picture "Peace," trying to absorb its beauty and calmness for future use, two Englishmen from Iowa, came in and sat down near me, while their wives and daughters rushed away to view the paintings. They were new to the city, and one remark amused me. One says, "Hi got lost last night. Hi couldn't find the 'otel, hon haccout of the 'igh bldin'."

At this moment one of the daughters came and wished her father to see a certain picture. He said, "No, Nature is good enough for me!"

But I know for all this those men must have found something to interest and instruct them elsewhere in that great exposition.

Let us try to make the most of every pleasure; it's a cure for gossip. Try it, Evaline, in your aid society.

Peggotty, I wonder if I know you? "Be prompt," are two words that should be heeded in many other meetings as well as Institutes.

ANGEL.

AN EASTER LILY.

I went home on Easter day to see a dear sister, who has been confined to her bed for months with that dread disease, consumption. Upon arriving, my little girl ran into the room ahead of me, and came back saying, "Oh, mamma, come in quick and see Auntie's Easter lily!"

Thinking some kind friend had sent her one I went into the room and there, on the dresser, was a pink rose bowl holding scarce more than a pint of earth from which were growing three morning-glory vines, running clear to the top of the mirror, their green leaves showing prettily in the glass, and on the center vine was a lovely, dark red morning-glory, the first blossom seemingly sent on purpose for Easter. The dear invalid was so pleased with it! It seemed an emblem of the beautiful life soon to be hers.

Her Easter offering was this. At her special request the children all met together at home that day for the first time in years. As I sat by my own fireside that evening it was with a heart filled with thankfulness that we had all been under mother's roof together once more. And as I thought of the dear one who had been the means of it, this verse came to me: Blessed are the peacemakers; for they shall be called the children of God.

MRS. GRACE.

An old subscriber writes to ask some one to send her a pattern for yoke dress for a little girl two years old, but although she says she will send a stamp for it, she neglects to sign her name.

V. A. L. says there is a mistake in her recipe for graham bread, as printed in the Household, April 2. In addition to the given ingredients there should be one cup of molasses. Do not condemn the bread until you give it one more trial and put in the molasses.

R. T. wants a good recipe for making potato salad.

ENAMELINE

Quick Shine
Little Labor
No Dust
No Odor

THE MODERN
STOVE POLISH

NO OTHER COMPARES WITH IT. IT'S THE BEST.



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MEAD & PRENTISS, 146 Ave N., Chicago.

The INVINCIBLE is a class by itself. By odds the most effective, durable and convenient Washer ever produced. It is to the washboard what a sewing machine is to a common needle. Much valuable information on cleansing for the asking. Address GEO. W. SWEET, Flint, Mich.

1898 Bicycles Down to \$5.00.

New 1898 Model Ladies' and Gent's Bicycles are now being sold on easy conditions as low as \$5.00; others outright at \$15.95, and high grade at \$19.95 and \$22.50, to be paid for after received. If you will cut this notice out and send to SEARS, ROEBUCK & Co., Chicago, they will send you their 1898 Bicycle Catalogue and full particulars.

1898 High Grade BICYCLES for Men, Women, Girls & Boys. Complete line. All brand new models. \$75 "Oakwood" for \$32.50 \$60 "Arlington" for \$24.50 Others at \$15, \$17 and \$20. No Money in Advance. WHITE TODAY for SPECIAL OFFER. Juveniles \$7.00 to \$12.50. Shipped anywhere C.O.D. with privilege to examine. Buy direct from manufacturers, save agents' & dealers' profits. Large Illus. Catalogue Free. CASH BUYERS' UNION, 163 W. VanBuren Street, B-217, Chicago, Ill.

Mention Michigan Farmer when writing to advertisers.

SHORT STOPS.

Mrs. B. writes: We sometimes hear of girls who receive presents of clothing, such as a nice dress or a pair of shoes from the young man she is going with, but mothers ought not to permit anything of the kind. I have daughters, but would rather they wore print dresses, than silks from the hands of young men. I know some mothers think it all right for their daughters to accept such presents, but it is wrong entirely; and if you will notice the young men who make them rarely marry the ones they are given to. No girl should accept gifts from young men, and the mother should see that this rule is enforced.

May W. writes: I want to talk a little about the one who wrote to the Household as Kitty D. I was pleased to see an interest taken in her by the readers of The Farmer. We do not know the pleasure it may give her to know she has the sympathy of unknown friends. If you have sympathy for her by reading her writing, you would have still more if you could read from her own lips the pain and suffering she has had. She has been in bed seven months, and it would be impossible to say how much longer she will have to remain there, and how much she will have to endure before she is well, if she ever is. I hope there are others who will feel an interest in her, for she needs the sympathy of all.

Agnes writes: This is my way of washing: Have the water heating while eating breakfast. As soon as possible after, get your water in the machine and set the men at it. Make three grades of white clothes, add more hot water and soap each time and when all are through pour hot water over all and cover while the men churn. You can have your breakfast work done up and now get things ready for dinner. While you take care of the butter the men can rinse the white clothes, put the colored ones through and hang them up, while you clean up and get dinner ready. I have only washed once in two weeks through the winter. My husband helps and we have it all over in two or two and a half hours—depends on how the butter acts and how many callers we have.

I have cupboards instead of a pantry. In the fall I covered the shelves carefully with several layers of newspapers. As they became dusty or soiled I would take the top layer off and my cupboards were all nice and clean.

What do you do when the handles come off your tin covers? I used to use them and burn my fingers, but my husband noticing them one day took the job in hand and made little lifters out of spools, or the ends of old broom handles. Just try them; they are very fine. Fasten them by tacks driven in from the under side.

THOUGHTS BY THE WAY.

Not many days ago I heard a conventional speaker say in his address: "Our brains should be used as generators not lumber rooms, as dynamos not dumps. Don't try to remember everything you know; put it on paper, or somewhere within reach in time of need." And the tersely put truth has enunciated itself within one of the recesses of my "lumber room," persistently obtruding its sharp corners for inspection whenever I enter the domain of thought. So, now, before it becomes dusty and cobwebbed with age I shall ruthlessly turn it forth to the scrutiny of the world. How do you like the look of it, friend? Truly, there's more in it than meets the eye; however, you needn't be afraid of it on that account (though I confess the sound of the thing is rather explosive), it will bear examination, never fear.

"Confess, now! Have not many, many beautiful and precious seed thoughts been dropped into your lumber room never to be thereafter used or heard from? Unsorted and unaired, they will, by and by, become so much trash, choking off the generating power of this engine room of the body instead of feeding it. Human nature is made of very spongy material at the best. Don't be a thought sponge! Or if you will, I suppose you will, but that isn't the end on't. Absorb, oh! yes! Absorb all you like, but just squeeze yourself once in a while too." These are some of the uncomplimentary sayings of that pertinent paragraph to me. Now suppose you, reader, talk with it a little.

Does some dear, tired sister say, "That's all very well for those who have plenty of leisure, but by the time I get my household arrangements

thought out, and wrought out, my attic chamber is apt to be neglected." No need of that. You can be a rummaging in that part of your domicile whose tiny window opens toward the skies, while your swift flying fingers are beating time to the requirements of the lower apartments. Moreover the very humblest humdrum duties are sweetened, and take on new meaning when we realize the dual capacity of our natures for receiving enjoyment.

I am reminded of some lines I wrote in more youthful days, about this very subject, and if I weren't so terribly afraid of that waste basket of Madame Editor, I should be tempted to drag them forth to the light of day again. Think I shall write them anyway and E. E. R. may cut them out or let them remain as she thinks proper. Only I trust that ere she errs by dubbing them poetry she will reflect that they are but the simple thought, crudely expressed, of a little country girl.

"How do all my thoughts come hither? Do you question in surprise? Dear! the thought-blossoms never wither For the earnest seeking eyes. Like the blossoms of the summer Grow they here, and everywhere, Waiting for the first new-comer

Who shall find them waiting there. In the oddest nooks and corners Lurk they, unassuming, shy, Unnoticed by clever scorers Who pass all their beauties by. In the lowliest occupation Finds the soul some sweetness still, Sees nothing of degradation

In whatever place we fill— Inspiration washing dishes! Listening to an owl's dim hoot! Ah! the greater wonder this is: Will the rhyme and reason suit? Music of a distant cowbell

Makes the echoes of the wood Rhythmic sounds of beauty now dwell Furnishing the nurses food. Thoughts too high for clear translation Floating on the lake's still breast, Moonlight whispers exaltation Swinging in the hammock's nest. Grandeur of a winter sunrise

Eyes and mind often beguile Of its strength and glory none dyes, But abides with us meanwhile. Shall the dainty flowerets bloom for Only me? Shall I withhold From other lives which have more room

for

Scope than mine, these things untold? Or, shall I, perchance in giving Assist some soul to nobler life? This, the best reward of living, This, a cause worthy of strife. HARTH F. BEETIC

FASHION NOTES.

The spring wraps are mostly jackets, tan and other light shades predominating. These are short, single breasted and button under a fly in front.

Tucks find a place in everything. Collars, waists, belts, sleeves, yokes, skirts all are tucked, very narrow (not over an eighth of an inch wide sometimes), a mere cord. These are placed in clusters of three, five or seven.

Waists are straight round at the bottom and most of them are belted, with a slight droop, or blouse effect in front. Fancy vests are still worn.

Sleeves are without much fullness, caps being placed over the shoulders. At the hand is whatever trimming garnishes the rest of the suit, with a lace or fine silk ruffle inside the wrist.

Skirts are five or seven gored, and a little less than four yards around the bottom. Narrow ruffles are frequently employed to trim them, or several rows of braid, although many are untrimmed. All have a small bustle, cut half moon shape, and lightly filled with curled hair, fastened inside at the belt.

Shirt waists are about the same as last year except that there is less fullness in the sleeves. They are now almost like a shirt sleeve, no fullness at the hand, cuffs of same material stitched on, and worn with white linen collars, either standing or turn over. Fancy leather belts are worn with these waists. Ties are straight and about one inch wide. They may be made at home of pique, lawn, or goods like the waist, white or colored, by taking a strip two inches wide and the right length. Sew up, turn and press. Tie in a double bow knot.

Small pearl buttons fasten the front

of the shirt waist instead of studs this year.

FOR MRS. RURAL.

MARIE.

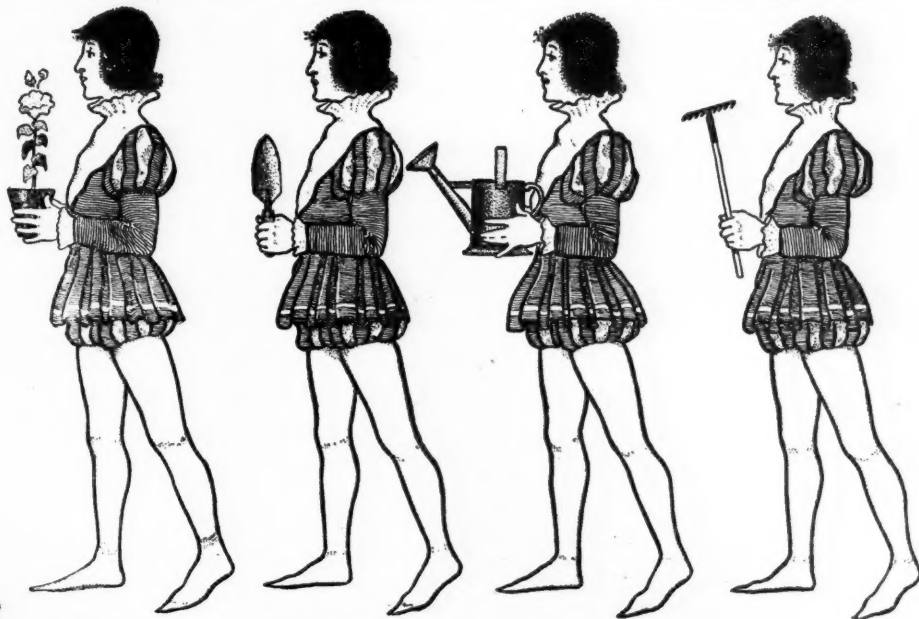
I would suggest the following mode of dress. I have worn such a suit for several years and find it perfectly satisfactory as to health, looks and comfort. For summer wear a gauze union suit, and a white petticoat sewed to a well fitted waist. This waist should be made the same as a dress waist, extending four inches below the waist line. The back is lined two inches above the waist line and for a fleshy person the front should be lined to the top of the darts to prevent its stretching. I use the same material for both skirt and waist. When an extra skirt is needed pin it to the waist. With your dress skirt and waist hooked together I think you will find a good substitute for a corset. If your dress waist is well boned it will set just the same as if you wore a corset. For winter wear a flannel skirt and waist.

For a hose supporter try turning back the legs of the underwear until they are just the right length. Then put on your stockings and they will stay up the whole week through.

I agree with Mrs. Mac as to flowers. I have a small flower garden and enjoy it very much; it has a wire fence around it, so I do not have the chickens to fight. If any of the sisters would like some blossoms and have no convenient place for a garden, try some window boxes. Make them about 10 inches wide and six inches deep. With good soil and plenty of water they will be a thing of beauty all summer. I have the best success with plants that are quite hardy, as they will stand the heat and wind.

DOLLY.

Hazelton girl's query about churning has been referred to our dairy editor and a reply will probably appear in his department before long.



Four Flower Pages:

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The Markets.

WHEAT.

War prospects have completely changed the wheat market, and prices have reached the highest point since last fall. Markets are all excited, and the bears are in a very tight place. Letter must feel good over the prospects. Foreigners are free buyers because they expect values to rule high as soon as war begins, as it will interfere more or less with shipments. Spot is firmer and has advanced much more than futures. Both Liverpool and Paris are advancing.

The following table exhibits the daily closing sales of spot wheat in this market from April 1 to April 21, inclusive:

	No. 1	No. 2	No. 3
	White.	Red.	Red.
April 1.....	92 1/2	94 1/2	91 1/2
" 2.....	92 1/2	94 1/2	91 1/2
" 3.....	92 1/2	94 1/2	91 1/2
" 4.....	92 1/2	94 1/2	91 1/2
" 5.....	92 1/2	94 1/2	91 1/2
" 6.....	92 1/2	94 1/2	91 1/2
" 7.....	92 1/2	94 1/2	91 1/2
" 8.....	92 1/2	94 1/2	91 1/2
" 9.....	92 1/2	94 1/2	91 1/2
" 10.....	92 1/2	94 1/2	91 1/2
" 11.....	92 1/2	94 1/2	91 1/2
" 12.....	92 1/2	94 1/2	91 1/2
" 13.....	92 1/2	94 1/2	91 1/2
" 14.....	92 1/2	94 1/2	91 1/2
" 15.....	92 1/2	94 1/2	91 1/2
" 16.....	92 1/2	94 1/2	91 1/2
" 17.....	92 1/2	94 1/2	91 1/2
" 18.....	92 1/2	94 1/2	91 1/2
" 19.....	92 1/2	94 1/2	91 1/2
" 20.....	92 1/2	94 1/2	91 1/2
" 21.....	92 1/2	94 1/2	91 1/2

The following is the record of the closing prices on the various deals in futures each day during the week:

	May	July	Aug.
Friday.....	97	82 1/2	79 1/2
Saturday.....	98 1/2	84 1/2	81 1/2
Monday.....	98 1/2	84 1/2	81 1/2
Tuesday.....	99 1/2	85 1/2	82 1/2
Wednesday.....	1 00 1/2	85 1/2	82 1/2
Thursday.....	1 03 1/2	87 1/2	84

The visible supply of wheat on Saturday last in the United States and Canada was 29,154,000, as compared with 30,129,000 bu the previous week and 36,979,000 bu at the corresponding date last year. The decrease for the week was 975,000 bu.

Referring to the situation in Argentina, which was once expected to furnish five million quarters for export, Broomhall says: "There is no doubt that the supplies of wheat so far have proved very disappointing, and a total shipment to Europe for the season of 2,000,000 quarters only is even mentioned, while the maximum estimate now is only 3,000,000 quarters. As the total shipped so far this season amounts to 1,500,000 quarters, the smaller figure mentioned seems below the mark. It is a fact, however, that freights are weak, owing to scarcity of cargo. The corn crop is likely to mature slowly."

The London Daily Mail has the following from Odessa, Russia, under date of April 5: "Owing to the American war scare the price of wheat is rising rapidly here, the stocks being insignificant. A number of steamers here are awaiting cargoes. Harvest prospects are brilliant, the prolonged period of rain and fog having given place to bright, warm weather, and the crops are progressing amazingly. A number of government agents are scouring the country buying up all the stocks of rye they can find."

French dealers are sharp bidders for our wheat, believing that the war will certainly force up values, and that country still requires a large amount to carry it over till harvest.

According to Broomhall, the world's shipments of breadstuffs last week were 8,824,000 bu, divided as follows: America, 4,066,000 bu; Russia, 2,400,000 bu; Roumania, 532,000 bu; India, 160,000 bu; Argentina, 1,016,000 bu; Austria-Hungary, 160,000 bu; various, 440,000 bu.

According to the Echo Agricole, farmers in France have made no complaints regarding the change to very cold weather, except that the spring sowings have had to be postponed. The decreased temperature, while arresting the development of vegetation, which was too much advanced in some regions, has had no detrimental effect upon the cereals, which in general continue to give complete satisfaction. The return of fine weather will enable the March sowings to be resumed, although the excess of moisture in the heavy lands renders the work rather difficult.

DAIRY PRODUCTS.

BUTTER.

The market has weakened since our last report, both east and west. In this market receipts of creamery have increased rapidly, and there is a weaker feeling in that grade, even at a decline of 1/10c. Prime dairy the most sought for, and so far prices have held about steady. Quotations are as follows: Creamery, 18 @20c; prime dairy, 16@17c; fair to good, 12@15c; common, 11@12c; low grades, 9@10c. At Chicago the supply of fine creamery is in excess of the demand, and we note a decline in that grade, while fair to choice dairy has held about steady. Quotations on Thursday were as follows: Creameries, extras, 17c; firsts, 15@16c; seconds, 13@14c. Dairies, extras, 16c; firsts, 13@15c; seconds, 12c. Ladies, extras, 12 1/2@13c. Packing stock, 12@12 1/2c; roll butter, fresh, 13 1/2c. The New York market has also declined, under steadily increasing receipts and a limited outlet for stocks, owing to exporters doing little or nothing. On good table grades there is a steady feeling at the decline, but a good deal of the receipts lack quality and flavor, and are heavily discounted in consequence. The outlook is not regarded as favorable for much, if any, improvement in values. Quotations on Thursday were as follows: Creamery, western, extras, per lb, 18c; do, firsts, 17@17 1/2c; do, thirds to seconds, 15@16 1/2c; do, State, fancy, 18c; do, firsts, 17@17 1/2c; do, thirds to seconds, 15@16 1/2c; State dairy, half-firm tubs, fancy, 17c; do, Welsh tubs, fancy, 16 1/2c; dairy tubs, firsts, 16c; do, thirds to seconds, 14 1/2@15 1/2c; imitation creamery, extras, 16@16 1/2c; do, seconds to firsts, 14 1/2@15 1/2c; factory, firsts, 14 1/2@15 1/2c; do, lower grades, 13@13 1/2c.

CHEESE.

The cheese market is without change at this point, values still being on the

basis of 10@10 1/2c per lb for best full creams. At Chicago there is a fair amount of business reported, with values at about the same range as a week ago. No change is looked for at present, but there may be some improvement in the situation just before the new make begins to arrive owing to stocks being well cleared out. Quotations in that market on Thursday were as follows: Young Americas, 8@9 1/2c; twins, 7 1/2@8 1/2c; cheddars, 7@7 1/2c; Swiss, 11@12 1/2c; limburger, 7 @12c; brick, 8@10 1/2c. The New York market has shown an unexpected amount of activity the past few days, which has resulted in a substantial advance in prices. The home demand is not large, but remaining stocks are in small compass and with the prospect that no new cheese of any consequence will be received until after May 1, holders take a very firm view of the position. Occasional small jobbing sales of gilt-edge quality are made at 8 1/2@9c, but 8 1/2c is all that the market will bear quoting as yet; small sizes have made an advance of fully 1/4c and closed freely. Exporters have also purchased freely of second grade goods. Quotations at the close on Thursday were as follows: State, full cream, fall made, large fancy, 8@8 1/2c; do choice, 7 1/2@7 3/4c; do common to good, 6@7 1/4c; do fall made, small, colored or white, fancy, 8 1/2@9c; do prime to choice, 8@8 1/2c; do common to good, 6@7 1/2c; light skims, small choice, 6@6 1/2c; do large, 5 1/2c; do common to prime, 3 1/2@5c; full skims, 2@3c.

The Liverpool market shows a decided change since a week ago. American white cheese has advanced to 38s 6d per cwt, and American colored to 40s, as compared with an average price of 37s on both grades last week. This has started exporters to buying freely.

DETROIT PRODUCE MARKET.

Detroit, April 21, 1898.

FLOUR.—Quotations on jobbers' lots in barrels are as follows:

Straights.....	\$4.75
Clear.....	4.50
Patent Michigan.....	5.25
Low Grade.....	3.50
Rye.....	3.25
Buckwheat.....	3.75
Granulated Corn Meal.....	2.00

CORN.—The visible supply of this grain on Saturday last in the United States and Canada was 34,914,000 bu, as compared with 40,100,000 bu the previous week and 24,103,000 bu at the corresponding date in 1897. Quotations in this market are as follows: No. 2, 31 1/2c; No. 3, 31c; No. 2 yellow, 35 1/2c; No. 3 yellow, 35c per bu.

OATS.—The visible supply of this grain in the United States and Canada on Saturday last was 12,716,000 bu, as compared with 13,540,000 bu the previous week, and 13,657,000 bu at the corresponding date in 1897. Quotations are as follows: No. 2 white, 31 1/2c; No. 3 white, 31 1/4c per bu.

RYE.—The visible supply of this grain in the United States and Canada on Saturday last was 3,076,000 bu, as compared with 3,511,000 bu in the previous week, and 3,630,000 bu at the corresponding date in 1897. No. 2 quoted at 55c per bu.

FEED.—Jobbing quotations on carload lots are as follows: Bran and coarse middlings, \$14; fine middlings, \$15; cracked corn, \$14; coarse corn meal, \$13; corn and oat chop, \$12 per ton.

BARLEY.—Quoted at 83@85c per bu. But little moving. The visible supply of this grain on Saturday last was 1,065,000 bu, as compared with 1,137,000 bu the previous week, and 2,233,000 bu at the corresponding date in 1897.

CLOVER SEED.—Prime spot, \$3.10; No. 2, \$2.85 per bu.

BEANS.—Market excited and higher, latest sales were at \$1.06 per bu for hand-picked.

EGGS.—Market steady at 9@9 1/2c per doz.

POULTRY.—Quoted as follows: Live—Spring chickens, 8@9c; fowls, 7@8c; turkeys, 9@9 1/2c; ducks, 9@9 1/2c. Dressed—Turkeys, 11@12c; chickens, 8 1/2@9 1/2c; geese, 8 1/2@9c.

TALLOW.—Quoted at 3 1/4@3 1/2c per lb.

CABBAGE.—Selling from wagons at 12@15c per doz or 1.30 per hundred.

DRIED FRUITS.—Evaporated apples, 8 1/2@9c; evaporated peaches, 10@12c; dried apples, 4 1/2@5c per lb.

APPLES.—Selling at 33@35c per bbl for fair to good, and 37 1/2@40c for fancy.

MAPLE SUGAR.—Pure quoted at 10@11c per lb; mixed, 8@9c per lb.

HONEY.—Quoted at 9@11c per lb for ordinary to best.

POTATOES.—Quoted at 60c per bu in car lots, and 65@68c from store. At Chicago quotations range from 50 to 61c per bu for common to choice.

ONIONS.—Michigan selling at 35@40c per bu.

HIDES.—There has been a general decline in prices. Latest quotations are as follows: No 1 green, 7c; No 2 green, 6c; No 1 cured, 8c; No 2 cured, 7c; No 1 green calf, 9c; No 2 green calf, 7 1/2c; No 1 kip, 8c; No 2 kip, 6 1/2c; sheepskins, as to wool, 90c@1.25; shearlings, 12@20c.

COFFEE.—Quotations are as follows: Roasted Rio, ordinary 9c, fair 11c; Santos, good 14c, choice 18c; Maracaibo, 20@25c; Java, 26@30c; Mocha, 28@32c; package coffee sold on the equality plan on a basis of \$10, less \$1.50 per 100-lb case in New York.

PROVISIONS.—No changes have taken place since a week ago. Latest quotations are as follows: Mess pork, 10.25 per bbl; short cut mess, 10.75; short clear, 10.75; compound lard, 1 1/2c; family lard, 5 1/2c; kettle lard, 6 1/2c; smoked hams, 8 1/2@8 3/4c; bacon, 8 1/2@8 3/4c; shoulders, 5 1/2c; picnic hams, 6c; extra mess beef, 8 1/2@9c; plate beef, 9.25.

OILS.—Lined oil has advanced; turpentine is slightly lower; no other changes. Quotations are as follows: Raw lined, 40c; boiled lined, 42c per gal, less 1c for cash in ten days; extra lard oil, 48c; No 1 lard oil, 33c; water white kerosene, 8 1/2c; fancy grade, 11 1/2c; deodorized stove gasoline, 7 1/2c; turpentine, 33 1/2c per gal in bbl lots.

HARDWARE.—Latest quotations are as follows: Wire nails, \$1.55; steel cut nails, \$1.60 per cwt, new card; axes, single bit, bronze, \$5; double bit, bronze, \$5.50; single bit, solid steel, \$6; double bit, solid steel, \$9.50 per doz; bar iron, \$1.40; carriage bolts, 75 per cent off list; tire bolts, 70 and 10 per cent off list; painted barb wire, \$1.70; galvanized do, \$2 per cwt; single and

double strength glass, 85 and 5 per cent off new list; sheet iron, No 24 \$2.50 per cwt; galvanized, 75 and 10 per cent off list; No 9 annealed wire, \$1.50 rates.

DETROIT LIVE STOCK MARKET.

Michigan Central Stock Yards.

Thursday, April 21, 1898.

CATTLE.

Receipts Thursday, 365, as compared with 810 one week ago. Of good average quality. Market active; all sold early at strong last week's prices. We quote: Good butcher steers, 1,050 to 1,200 lbs, \$4.30 to \$4.50; 875 to 1,000 lbs, \$4 to \$4.25; steers and heifers, \$3.85 to \$4.25; mixed butchers, \$3.35 to \$3.75; bulls, \$3 to \$3.50; old to good fat cows, \$2.50 to \$3.00; feeders and stockers, shade lower; \$3.50 to \$4.10. Veal Calves—Receipts, 118; one week ago, 139; active, at \$4.50 to \$5.50 per 100 lbs, mostly \$4.75 to \$5.25. Milch cows and springers active at \$30 to \$45 each.

Hogan sold Sullivan a steer weighing 730 at \$4, a cow to Mich Beef Co weighing 1,050 at \$3 and 6 steers at \$1.00 at \$1.15. Adams sold Mich Beef Co 3 fat cows at \$1.13 at \$3.50, a heifer weighing 570 at \$3.75 and 2 steers to Sullivan at \$3.80.

Bergen & Terhune sold Sullivan 3 steers and heifers at \$16 at \$3.30, 3 cows to Black at \$1.23 at \$3.35 and 3 heifers at \$1.70 at \$3.85.

Carson sold Black a steer weighing 870 at \$3.75 and 11 do at \$70 at \$4.20.

Ackley sold Mich Beef Co 14 steers and heifers at \$90 at \$4.15 and 2 heifers at \$15 at \$4.

Belheimer sold McIntyre 3 heifers at \$86 at \$3.90, 2 cows at \$1,055 at \$3 and a fat cow at \$70 at \$3.60.

Robb sold Caplis & Co 2 steers at \$1,205 at \$4.40, 4 mixed butchers at \$1,010 at \$3.50, 3 heifers at \$800 at \$4 and 1 do weighing 600 at \$3.25.

Thompson sold same 3 cows at \$50 at \$3.30, 1 weighing 960 at \$2.60 and 3 steers at \$1,053 at \$4.40.

Dennis sold Fitzpatrick 10 steers and heifers at \$63 at \$4 and 2 cows at \$1,015 at \$3.25.

Nixon & McMillan sold Mich Beef Co 14 steers and heifers at \$92 at \$4.15 and 10 mixed butchers at \$15 at \$3.40.

Spicer & M sold Magee 3 cows at \$96 at \$3.20 and a bull weighing 480 at \$3.20.

Sharp sold Sullivan 6 steers at \$71 at \$4, 3 heifers at \$86 at \$4 and 2 cows at \$1,130 at \$3.15.

Baker sold Sullivan 5 steers and heifers at \$74 at \$3.90.

Spicer & Merritt sold Mich Beef Co 2 cows at \$40 at \$3.15 and 2 heifers at \$60 at \$3.50.

Korff sold Scheicher 19 steers and heifers at \$76 at \$2.90.

Spicer & Merritt sold Sullivan 4 stockers at \$97 at \$3.85.

York sold Black 4 mixed butchers at \$95 at \$3.25, 2 heifers at \$95 at \$4.25 and a cow weighing 930 at \$3.

Estep sold Black 10 steers and heifers at \$71 at \$4.

Roe & Holmes sold Robinson 6 steers at \$92 at \$4.25, 2 mixed butchers at \$70 at \$3.75, a cow weighing 1,050 at \$3.25, 1 do weighing 1,130 at \$3.50, 1 do weighing 1,020 at \$3 and 1 weighing 920 at \$2.50.

Roe & Holmes sold Ellis 20 stockers at \$50 at \$3.85, 26 steers to Robinson at \$91 at \$4.20, 11 steers to Mich Beef Co at \$93 at \$4.25, 2 mixed at \$90 at \$3.50, a cow weighing 1,080 at \$3.25 and a bull weighing 1,110 at \$3.25.

Ansty sold Fitzpatrick 2 mixed butchers at \$80 at \$3.35 and 4 steers to Caplis & Co at \$91 at \$4.25.

Perrin sold Stead 4 steers at \$1,185 at \$4.05.

Watson sold Black 11 mixed butchers at \$95 at \$3.40.

Erwin sold Caplis & Co a cow weighing 960 at \$3, 1 do weighing 1,100 at \$3.25, 2 steers at \$95 at \$4.25 and a bull weighing 2,000 at \$3.50.

White sold Mich Beef Co 13 steers at \$88 at \$4.25 and 2 mixed at \$80 at \$3.50.

Wagner sold Marx 9 mixed butchers at \$70 at \$3.75.

SHEEP AND LAMBS.

Receipts Thursday, 962; one week ago, 1,457. Market active and unchanged. Range of prices: Good to choice wool lambs, \$5.00 to \$5.50; clipped, \$4.00 to \$4.50; mixed lots, \$3.50 to \$4.00; culls and common, \$2.50 to \$3.50.

Bergen & Terhune sold Patton 23 clipped lambs at \$69 at \$4.00 and a buck weighing 200 lbs at \$2.50; 43 wool lambs to Monaghan at \$72 at \$5.50 and 2 bucks at \$110 at \$2.50.

Adams sold Fitzpatrick 53 clipped at \$7 at \$4.15.

Dennis sold Monaghan 50 mixed at \$7 at \$4.00.

Ansty sold Sullivan Beef Co 97 clipped lambs at \$71 at \$4.40.

Cushman sold Fitzpatrick 237 clipped lambs at \$80 at \$4.25.

Reason sold Young 19 clipped at \$7 at \$3.75 and 11 wool lambs at \$4 at \$5.50.

Robb sold same 17 clipped at \$81 at \$4.25.

Thompson sold Monaghan 32 clipped at \$90 at \$4.25.

Smith sold Hosley 54 clipped at \$106 at \$4.30.

Watson sold Mich Beef Co 72 mixed at \$72 at \$4.50.

Hosley sold same 196 clipped at \$82 at \$4.25.

HOGS.

Receipts Thursday, 3,139, as compared with 3,375 one week ago. Of fair average mixed quality. Market active and 10c higher than last Friday's closing. Range of prices, \$3.75 to \$3.80; stage 1-3 off; roughs, \$3.00 to \$3.25; pigs and light yorkers, \$3.40 to \$3.70.

Bergen sold Sullivan 77 at \$179 at \$3.75.

J McMullen sold same 112 at \$157 and 81 at \$166 at \$3.80.

Robb sold same 40 at \$155 at \$3.80.

Van Buskirk sold same 88 at \$134 at \$3.70.

Smith sold same 23 at \$132 at \$3.75.

Cooper sold same 71 at \$158 at \$3.80 and 15 pigs at \$102 at \$3.40.

Hogan sold same 29 at \$149 at \$3.75.

Estep sold same 33 at \$164 at \$3.90.

Lindsay sold same 12 at \$183 at \$3.75.

Sharp sold same 53 at \$168 at \$3.75.

Bunnell sold same 113 at \$154 at \$3.75.

Baker sold same 81 at \$163 at \$3.80.

Thorburn sold same 84 at \$170 at \$3.80.

Clark sold same 22 at \$149 at \$3.80.

Nixon sold Hammond, S & Co 47 at \$243 at \$3.75.

Roe & Holmes sold same 26 at \$149 and 15 at \$180 at \$3.75.

Watson sold same 36 at \$152 at \$3.70.

Roe & Holmes sold same 55 at \$157 and 69 at \$163 at \$3.80, 80 at \$155 at \$3.75, 83 at \$157 at \$3.80.

161 and 146 at \$165 at \$3.80.

York sold same 49 at \$160 at \$3.80 and 16 pigs at \$7 at \$3.40.

Kennedy sold same 90 at \$168 at \$3.80.

Ackley sold same 45 at \$174 at \$3.75.

Nixon & McMillan sold same 165 at \$178 at \$3.72 1/2.

Belheimer sold same 19 at \$190 at \$3.80.

White sold Koppis 11 pigs at \$70 at \$3.60.

Beach sold Parker, Webb & Co 73 at \$171 at \$3.75.

Spicer & M sold same 68 at \$173 at \$3.80 and 61 pigs at \$2 at \$3.50.

Ansty sold same 65 at \$160 at \$3.75.

Spicer & M sold same 52 at \$166, 60 at \$161 at \$3.75 and 12 pigs at \$101 at \$3.50.

White sold same 57 at \$151 at \$3.75.

Erwin sold same 17 pigs at \$111 at \$3.50 and 27 at \$149 at \$3.80.

choice finished steers, \$4.00; choice shipping steers, \$3.75; choice fat steers, \$3.50; choice fat cows, \$3.25; choice fat heifers, \$3.00; choice fat calves, \$2.75; choice fat yearlings, \$2.50; choice fat calves, \$2.25; choice fat yearlings, \$2.00; choice fat calves, \$1.75; choice fat yearlings, \$1.50; choice fat calves, \$1.25; choice fat yearlings, \$1.00; choice fat calves, \$0.75; choice fat yearlings, \$0.50; choice fat calves, \$0.25; choice fat yearlings, \$0.00.

Sheep and Lambs.—Receipts Monday were 20,800, as compared with 16,900 the previous Monday; shipments were 13,600 as compared with 10,600 for the same day the previous week. The market on Monday opened with unexpectedly large receipts, and ruled slow and dull in consequence. Values were fully 2¢ to 3¢ per hundred lower on both sheep and lambs, and wool and heavy stock were especially dull. \$5.40 to \$5.50 was top price on wool lambs, \$4.60 to \$4.75 on best wool yearlings, and \$4.50 to \$4.65 on best wool wethers. In clipped, best lambs brought \$4.50 to \$4.55, best sheep \$3.90, with culls selling down to \$3. Unfavorable reports from other points helped depress the market. Since Monday the market has ruled rather dull. Heavy weights have not improved, but heavy sheep and lambs are firmer, and the latter a little higher. Quotations on Wednesday were as follows: Native Wool Lambs.—Choice to fancy native lambs, 75 to 85 lbs, \$5.40 to \$5.50; fair to good native lambs, \$5.25 to \$5.35; good cull and common lambs, \$5.05 to \$5.15; common to fair cull lambs, \$4.85 to \$4.95; fair to prime western lambs, \$4.65 to \$4.75; fair to choice feeding lambs, \$4.45 to \$4.55; clipped lambs.—Choice to extra fresh clipped, \$4.50 to \$4.65; fair to good, \$4.25 to \$4.40; culls and common, \$3.50 to \$4.15; heavy clipped lambs, \$4.20 to \$4.30. Wool Yearlings.—Good to choice native heavy yearling wethers, \$4.60 to \$4.75; common to fairly good ewe and mixed yearlings, \$4.25 to \$4.50; heavy yearlings, \$4. Native Wool Sheep.—Prime to fancy wethers, \$4.50 to \$4.65; good to fancy heavy sheep, \$4.35 to \$4.40; common to fair, \$4.15 to \$4.25; culls and common, \$3.40 to \$4; heavy export fed western sheep and wethers, \$3.50 to \$3.65; heavy native wethers, 110 to 150 lbs, \$3.65 to \$3.90. Clipped Sheep.—Choice to extra heavy, \$3.90 to \$4; culls to good, \$3.45 to \$3.75; heavy fed western export clipped sheep nominally, \$3.50 to \$3.60; heavy native corn fed wether sheep of 110 to 125 lbs, \$3.60 to \$3.75.

Thursday the market ruled active and stronger; top clipped, heavy lambs, \$4.75 to \$4.90; others, \$3.90 to \$4.65; sheep, \$3.25 to \$4.25; heavy export lambs, \$4.35 to \$4.50; wool lambs, \$5.25 to \$5.70; several loads of Colorados unsold.

Hogs.—Receipts of hogs on Monday last were 20,900, as compared with 35,910 for the same day the previous week; and shipments were 17,100, as compared with 22,400 for the same day the previous week. Under light receipts the market ruled steady to strong, with values about the same as on Saturday. Toward the close there was an easier feeling, as the result of unfavorable reports from western points. Choice mediums sold at \$3.90 to \$4, selected yorkers at \$3.90 to \$3.95, mixed packers at \$3.85 to \$4; mediums at \$4 to \$4.05, and prime heavy at \$4.05 to \$4.10. From 6,000 to 8,000 went over unsold. Since Monday, under lighter receipts, the market has improved both in tone and prices. Quotations at the close on Wednesday were as follows: Good to choice light medium grades, 165 to 190 lbs, \$4.05 to \$4.10; choice and selected yorkers, 140 to 160 lbs, \$4.05 to \$4.10; light yorkers and pigs mixed, \$4.05 to \$4.10; fair to best medium weight, 210 to 230 lbs, \$4.10; good to prime heavy hogs of 270 to 300 lbs, \$4.10; roughs, common to good, \$3.60 to \$3.70; stags, common to good, \$2.75 to \$3.25; pigs, 110 to 120 lbs, good to prime corn fed lots, \$3.70 to \$3.80; pigs, thin to fair light weights, 75 to 100 lbs, \$3.50 to \$3.60; pigs, skips and common light and undesirable lots, \$3 to \$3.25.

Thursday the market ruled active and higher; yorkers, \$4.10 to \$4.15; mixed, \$4.15; medium and heavy, \$4.15 to \$4.20; pigs, \$3.90 to \$4.00.

CHICAGO.

Union Stock Yards, April 21, 1898.

Cattle.—Receipts for last week were 48,087 head, as compared with 44,412 the previous week, and 39,396 for the corresponding week in 1897. Receipts Monday were 13,500, as compared with 19,287 for the same day the previous week. The result was a strong opening at an advance of 10¢ from the low range of last week. Fair to good cattle ruled steady at the advance, but other grades were rather weak under a slow demand. The best native steers sold at \$5.10 to \$5.25, only a few sales above

\$5; other sorts, and the bulk of the sales of export and dressed beef steers, \$4.40 to \$4.60; fat heifers, \$3.75 to \$4.50; fat yearling steers, \$4.40 to \$4.60; fat cows, \$3.50 to \$4.65; canners, \$3.40 to \$3.50. Only a few veal calves were on sale, and they ranged from \$4.25 to \$5.25 per hundred for common to good. No extra on sale. Up to and including Wednesday the receipts of cattle this week have been 24,953, as compared with 37,132 for the same days last week. The lighter receipts have checked the decline in prices, but up to Wednesday's close the market was dull and spiritless. Closing quotations that day were as follows: Prime beefs, \$5.15 to \$5.35; choice fat, 1,300 to 1,600 lbs, \$4.85 to \$5.10; smooth, 1,200 to 1,400-lb steers, \$4.50 to \$4.80; fair do, \$4.15 to \$4.40; plain and rough beef steers, 1,100 to 1,300 lbs, \$3.90 to \$4.10; poor and common do, \$3.65 to \$3.85; choice fat cows and heifers, \$3.75 to \$4.30; plain to choice beef cows, \$2.50 to \$3.70; poor to good canners, \$1.90 to \$2.80; veal calves, \$4.25 to \$5.75; stock calves, \$3.75 to \$4.75; stockers and feeders, \$3.75 to \$4.70; bulls, poor to choice, \$2.75 to \$3.80; fair to choice fed Texas steers, \$3.70 to \$4.65; fair to choice branded westerns, \$4.15 to \$5, with sales at \$4.60 to \$4.80.

Estimated receipts Thursday, 9,000; market steady; steers ranged from \$3.90 to \$5.20; cows and heifers, \$2.25 to \$4.60; stockers and feeders, \$3.70 to \$4.75.

Sheep and Lambs.—Receipts last week were 13,714, as compared with 76,230 for the previous week, and 67,224 for the corresponding week in 1897. The market opened with 20,000 on sale, as compared with 23,774 the same day last week. Trade ruled slow and uncertain from first to last, with prices 10¢ to 15¢ lower on both sheep and lambs, top Colorado and Mexican woolled lambs selling at \$5.50, against \$5.60 to \$5.65 at the close of last week, and \$5.70 to \$5.75 last Monday; the top price for the season was \$6; a fairly good quality of native lambs sold at \$5.25 to \$5.30; common clipped lambs sold at \$4.50 to \$4.60; tops, \$4.70 to \$5; common clipped sheep, \$4.15 to \$4.30; the best woolled, \$4.50 to \$4.60. Up to and including Wednesday of this week receipts were 31,406, as compared with 49,513 for the same days last week. Wednesday prices showed a further decline, and the market ruled slow and weak. Closing prices were as follows: Ewes and mixed, 90 to 105 lbs, \$3.80 to \$4.10; good to prime western and Mexican muttons, \$4.10 to \$4.30; culls and thin, \$2.75 to \$3.50; good to prime yearlings, \$4.35 to \$4.50; choice to prime woolled lambs, \$5.25 to \$5.45; poor to good clipped lambs, \$3.75 to \$4.80; fair to choice clipped lambs, \$4.40 to \$4.50.

Receipts Thursday estimated at 9,000; market steady to firm.

Hogs.—Receipts last week were 145,133, as compared with 138,206 the previous week, and 111,921 for the corresponding date in 1897. Offerings on Monday were 37,000 as compared with 35,787 the same day last week, an increase of 1,200 head. Despite the slightly lower receipts and reports of a like character from other markets, trade ruled slow and values slightly lower, especially on heavy and mixed grades. Top prices for prime heavy butcher weights and shippers were \$3.85 to \$3.90, against \$3.90 to \$3.95 Saturday; one load sold at \$3.92; good mixed and packers sold at \$3.75 to \$3.85; assorted light of 150 to 160 lbs sold at \$3.75 to \$3.85; light mixed, 120 lbs up to 200 lbs, to round up to 150 lbs or thereabouts, \$3.75 to \$3.77; light little pigs, \$3.25 to \$3.35. Up to and including Wednesday of this week receipts have been 83,508, as compared with 84,844 for the same days last week. The market ruled active and strong Wednesday, with prices showing an advance of 2½¢ to 6¢ per hundred. About everything was sold out. Rough and common sold at \$3.70 to \$3.80; prime packers and good mixed, \$3.85 to \$3.90; prime medium butcher weights and shippers, \$3.92 to \$3.95; choice assorted light, \$3.80 to \$3.85. Syndicate sort of light, say 120 lbs up to 200 lbs average, to round up at 140 to 160 lbs average, \$3.77 to \$3.80, against \$3.75 at the close yesterday. There were lots of "razorbacks" and Tennessee stock that sold at \$3.45 to \$3.60, and pigs at \$3.25 to \$3.40.

Thursday's receipts estimated at 24,000; market active, mostly 10¢ higher; light, \$3.70 to \$3.85; mixed, \$3.85 to \$4.05; heavy, \$3.80 to \$4.07; rough, \$3.80 to \$3.85.

The gathering of ginseng, the root for which the Chinese are willing to pay so high a price, will be quite an industry this summer in Arenac and the neighboring counties. The root brings from \$2.75 to \$3.50 per pound.—Free Press.

The Maryland Steel Co., of Baltimore, has received an order for several million dollars' worth of steel rails from Russia for the Trans-Siberia railroad.

Mrs. Lillian M. Stevens, of Maine, has been chosen president of the National W. C. T. U. Mrs. Stevens has been vice-president at large for several years, and has been president of the Maine W. C. T. U. for 13 years. She also served with distinction as one of the lady managers of the World's Fair.

Mr. Gladstone's physicians are of the opinion that their patient cannot live more than two months. The Grand Old Man is suffering from cancer, and is no longer able to read or write.

A decisive battle was fought in the Soudan last week between the British and Egyptian troops on one side and the dervishes on the other. The dervishes were routed, 2,000 of their number slain and their leader captured. The victory caused great rejoicing in England, as it opens the road to Khartoum, and that place will soon be taken.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and synopsis of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

Worms—Cough.—Eight-year-old mare has worms. She is very uneasy by spells. Shakes head and throws it around to sides; perspires too freely. Appetite good; has a cough. J. C. P., Dentons, Mich.—Give two drams powdered sulphate iron, two drams gentian, half a dram santonin twice a day until she is cured. Feed plenty salt.

Sprain of Fetlock Joint.—Have a mare that got hurt on right hind ankle. When she starts she raises foot up high like stringhalt, but does not when she has been driven some distance. Does not lift it up when she backs. H. M., Cheshire, Mich.—Apply a blister once every three weeks. Do not blister her very severely. After applying two blisters, use iodine.

Two Openings in Teat.—A heifer that has just come fresh, has, besides the opening in the end of one teat, a second opening in the side about half way up, through which the milk comes freely. W. F. A., Milan, Mich.—Make the edges of upper opening raw, and then stitch the wound as close as possible with fine catgut or silk worm gut, and apply Ceres Minera twice a day.

Sore Throat—Diarrhoea.—Turkey took sick over a week ago. I first noticed him drooping; has diarrhoea. Rattles in throat; very little appetite. Have given him alum and copperas, also cayenne pepper and sulphur in ground feed. W. A. H., Hickory, Mich.—Give three grains powdered bismuth three times a day in feed. Apply to throat once a day. Put citrate of iron in water that he drinks.

Azoturia—Perspires too Freely.—Mare eight years old trembles after being driven, especially if she has not regular daily exercise. She has had three attacks. I also have a six-year-old mare that sweats too freely. G. F., St. Johns, Mich.—Feed less grain and exercise her more and she will not have any such attacks. It is no doubt natural for your mare to perspire freely; it would do her harm to check it.

Light Tail.—A horse nine years old has a very thin tail, and it is gradually decreasing. Can anything be done to make it grow again? J. V., Filmore, Mich.—It is natural for many horses to have light, thin tails. If your horse ever had a heavy tail you can possibly grow another on him. Apply kerosene once a day for a few days. Wash tail with salt and water once a day. If scalp of tail becomes dry, apply vaseline.

Paralysis.—Have a sow that has her second litter of pigs. Appeared all right until pigs were seven days old. When I went to feed her she could not get up on her hind feet. That was three days ago. Lies on her belly most of the time, but eats well. Pen is in basement of barn. W. B., Jackson, Mich.—Your sow has paralysis. Apply equal parts of turpentine, aqua ammonia and raw linseed oil to back once a day. Give one ounce epsom salts and half dram tincture nux vomica twice a day. Keep her nest clean.

Sore Mouth—Mechanical Obstruction.—Cow calved February 28. Soon after I noticed she could not eat. Has good appetite, but can not chew. Takes food, tries to chew, then drops it. Acts as if teeth were sore. Veterinary examined her two weeks ago, and again later; could find nothing the matter with teeth, mouth or throat. Has grown very thin, but does not appear sick. O. J. C., Pompeii, Mich.—Your cow's mouth and throat may be sore; if not, look for a diseased tooth, piece of wood, corn cob, or foreign body in back of mouth which prevents her masticating food and swallowing it.

Colt Takes Cold.—Yearling colt seems to be in good condition, and will eat anything when I feed him. But when turned out for half a day or a day, he will swell up under jaws and throat. Head is so swelled that I can hardly get his halter on. Swelling will go down as soon as he has been in barn over night. L. M. K., Forward, Wis.—Keep your colt in warm barn until weather gets warmer. Apply a hood to head and throat; also use equal parts alcohol, extract witch-hazel and tincture iodine once a day. Keep his bowels open and acting freely.

Catarrhal Fever.—Yearling sheep has sore nose and upper lip; also slight watery discharge from nostrils; will not eat, but drinks as if very thirsty; is getting weak and staggers. Several of same flock seem to be coming down with same trouble; also two or three in flock of ewes. Have 105 sheep divided into two flocks. All have been fed clover hay twice a day, oat straw at noon, and corn and oats once a day for grain. A. D. H., Goodrich, Mich.—Your sheep suffer from catarrhal fever caused from atmospheric influences. Give them plenty of salt, and some powdered saltpeter and sulphate of iron in feed. When the weather gets warmer they will get well. Do not expose them to cold rains.

Thoroughpin.—I have a 1300-lb. bay gelding that is affected with a swelling in hock joint of both legs. Last December he was shot for the first time, and two or three days after was driven double, hitched to a sleigh, on good sleighing, a distance of 32 miles, and the next day was driven back again. The swelling began to form from that time. It is on both sides, and seems to extend through the joint. I can push the swelling, to a certain extent, through the joint from one side to the other, where it will remain, not seeming to be at all elastic. The left leg is much the largest; he does not go lame, and has no pain. Did no hard work during the winter. M. A. S., Fulton, Mich.—Blister puffs with caustic balsam once every ten days. Moderate use will not injure him.

LICE

Fleas, Ticks, Scab, Mange and other parasitical troubles. "The Cold Water Dip" recommended and used by the leading Breeders and Veterinarians all over the world; non-poisonous. Mixes instantly with cold water. Sample by mail 50¢. For sale by all reliable dealers. Lawford Bros. Box 2 Baltimore, Md. Sole Agents for U.S.



SILBERMAN BROTHERS, the well-known wool dealers of Chicago, announce that they are now ready to handle consignments this season in better shape than ever before. They have an immense warehouse, and enjoy special facilities for disposing of wools to the best advantage. This firm offers shippers liberal cash advances on consignments, at five per cent interest, charge only one cent per pound for selling, which includes all expenses of grading, storing and insurance, furnish free sacks, and keep consignors posted on the condition of the market. In their last circular, issued early this month, the firm says of the market and its prospects: "Wool is far below the importing point, manufacturers are still large consumers and will soon have to enter the market to replenish their stock, therefore it is only a question of time and patience when our prediction will become a settled fact." The firm is located at 121 to 123 Michigan Ave., Chicago.

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Farmers having Tags to sell can obtain highest market prices by addressing
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STANDARD OIL COMPANY,
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Thymo-Cresol

Horticultural.

For The Michigan Farmer.

AN UP-TO-DATE FRUIT GROWER.

The up-to-date fruit grower is a wide-awake man or woman, and does not follow in the ruts made by the preceding generation of fruit growers. He reads everything that he can get pertaining to his line of work, and is not slow to "catch on" to new ideas.

Of course, he aims to enrich his ground to the highest degree of fertility, and fits it with the object in view of getting every particle of soil into that condition which will make it an acceptable feeding ground for the large number of roots that every plant must have in order that it may bring to maturity its quota of 300 bushels to the acre yield. He sets nothing but the strongest and most thrifty plants in the best possible manner, and cultivates them after the most approved method. He gives his plants protection during the freezing and thawing of the winter months, and mulches his strawberries during the picking season, to keep the fruit from becoming "gritty."

He gives his raspberries and blackberries a winter pruning, and furnishes them with a mulch of fine dirt, making the soil "sweat" with frequent cultivations.

When a new variety, that is extra large, very beautiful, or of unusually fine quality, enters a market it creates a sensation, hence the up-to-date fruit grower tests the new varieties as they come out, so that when a really valuable variety is introduced he has it in advance of his competitors, thus attracting trade to himself. He has no fear of a "glut" in the market because he uses full quart baskets, and does not put inferior fruit in the bottom, finishing them off with a few nice berries; but puts the best berries in the bottom, which agreeably surprises his customers.

He takes pride in his personal appearance and his customers know him as that pleasant looking man who brings us such nice berries, and the little folks along his route, with whom he has made friends, herald his appearance with "here comes the berry man."

The up-to-date fruit grower often leads those in his vicinity, though not necessarily every other person following his profession; for this is a large country and many smart, wide-awake men are engaged in fruit growing; but he may, and does, keep up with the procession, even though he has to hang on to the "big" fellows' coat tails.

St. Clair Co., Mich. M. N. EDGERTON.

For The Michigan Farmer.

APRICOTS AGAIN.

Friend Brown, in The Michigan Farmer some three years since, in replying to queries regarding the proper culture of apricots, expressed the wish to hear again from apricot growing in the West Michigan fruit belt. The eleven trees mentioned have been sprayed with Bordeaux mixture by the "hired men." Only a very few baskets of the fruit were shipped the first two years. The third year several bushels resulted. Some were shipped. There were some three or four families, besides "the threshers" that regaled themselves ad libitum, hence we are at sea regarding anything like an approximation to exactness. We will say half a dozen bushels, or more, enough to demonstrate they can be grown here under favorable conditions. Not all bore, and all are small.

But it was the methods of spraying, etc., we were disposed to discuss in this article. A neighbor remarked of the fellow that did the spraying two years ago, "He perhaps understood that it was the ground, not the trees, that were to be sprayed." Two such effusions seem to have resulted quite favorably, judging from the above. We see no reason, unless it be as a recent writer remarked of profusely salting the ground beneath his plum trees—"Possibly the young curculios did not like it; and the old ones found it out." Possibly profuse spraying on the ground beneath the plums and apricots would benefit quite as much as the mixture that stops upon leaves and fruit.

We have employed "the little boys" picking up the wormy plums, paying a few pennies per quart for the service. These were merely cooked promiscuously and thrown upon the ground.

We hoped by this method to prevent both the old and young from "knowing" anything about it. Altogether our plums and apricots were somewhat an encouragement to "try, try again." We wonder if it would pay if all our farmers should institute a feed cooker of some sort in the orchards and cook by the wholesale codling moths and curculios, etc., etc.? Would the cooked fruit thrown at the foot of the trees prove a good fertilizer? Would the price and labor of so much Bordeaux mixture, etc., saved, avail in the expense and bother of kerosene, or gasoline, as fuel, and the fuss of gathering the affected fruit through the season? "Just like a woman," I suppose, to ask such simple questions.

ONLY A WOMAN.

For The Michigan Farmer.

NOVELTIES IN FRUITS.

The rage for novelties has been carried so far by some nurserymen that it is amusing, or would be if people were not deceived into buying such an amount of worthless stock. Here are some names taken from one catalogue: Alpine strawberry, tree blackberry, Japanese wineberry, balloon berry, strawberry-raspberry and blackberry-raspberry. Next year we shall look for a peach-currant or a plum-gooseberry, with a grape-cherry and a pear-simmon still to follow, and other combinations so long as human credulity holds out. The possibilities of the imagination are great when backed by printer's ink.

Among these wonders the Alpine ever-bearing strawberry takes first place. It will surprise many readers to be told that the strawberry has at last condescended to grow from seed like a garden vegetable, but so it seems. The seeds are planted in March or April in a hot-bed, then transplanted like cabbages or tomatoes. No time is lost in fooling around, but the plant gets down to business at once. It has ripe fruit by the middle of July, and keeps at it until the ground freezes. It is perfectly hardy and has several other good qualities. The fruit is superior to any other, or perhaps to all others combined. It is said to be not quite as large as other strawberries, but that may be an error in the description. The berries ought to be as large as apples, or pumpkins, with the seeds all in the stem. In color they are red, white and black. It would be more patriotic if some of them were blue, but those who invest very heavily in the novelty may easily supply that color after the first season, in all probability. To be still more accommodating there are both runner and bush varieties. The former are propagated from runners like common, every-day strawberries, as well as from seed. As for the latter, it is not stated how plants are obtained, except from seed, perhaps from leaves. The only fault is that the plant does not bear the year around. If we could dig down in a snowbank and pick a quart of berries for a Christmas dinner we would consider it the ideal fruit. One company which we have found reliable sent out the Alpine strawberry three or four years ago, but with very modest claims as to merit. As we do not find it in their catalogue this year it is safe to infer that it is not of much account.

Another novelty is a blackberry which has forsaken the ways of its ancestors and now grows on trees in place of canes, a departure from old customs which cannot be too highly commended. Like the Alpine strawberry it surpasses everything of its kind in quality and productiveness. The plant is overbearing and the fruit is enormous in size. No claims for hardness are made, which is probably oversight.

We have always found blackberries green when they were red, though we have heard of some that were white when ripe, but here comes a variety that is ripe when it is red. Its good qualities are only appreciated when it is tested.

The Japanese wineberry is still being extensively advertised. It is both hardy from Maine to Texas and too tender for our northern winters, depending upon the conscience of the catalogue maker. It has a flavor peculiar to itself and surpassing all other berries. Insects do not come near it, and to cap the climax it produces the most fruit of any berry in creation, at least any that has yet been discovered. Unfortunately, those who have tried it find that it does not always fulfill the promises, but is of more value as a curiosity than as a market fruit. The plant bears its fruit in a husk, which

makes it unique, and it is also ornamental; but it is too uncertain and spare a bearer for any commercial value in Michigan, according to reports.

Japan is also responsible for the strawberry-raspberry, or tree strawberry. This is indeed a wonderful fruit, and although it has been before the public for two or three seasons, we are not yet certain that some of the catalogues have yet reached the limit of the imagination. It resembles the wineberry in being the most productive berry in existence and in enjoying immunity from insects. Anthracnose, blight and all other diseases keep clear of it. The berries are the largest that grow, and are produced from mid-summer till winter. The blossoms are not of the ordinary kind, but large and fragrant, the canes being covered with the white flowers from spring till fall. For some reason the fruit is not quite so good as either the strawberry or raspberry, though somehow resembling both. We have not tried the plant, and are glad of it. Last fall we were told by one who had experimented with it that it was not desirable either on account of flavor or productivity. The plant was hardy, and that was one trouble with it. If allowed to get a start it was as bad or worse than the Canada thistle. Probably it is something that should be handled with care.

As though Japan were not to blame for enough already she is accused of giving us the balloon berry, which is said to be unlike any other fruit now in cultivation. It is claimed that the fruit has many valuable qualities of its own, but as to that the future must decide. The fruit is yellow and large. It derives its name from its shape, though the illustrations would indicate that it resembles a raspberry as much as a balloon.

It has been more than a dozen years since it has been known that a hybrid between the raspberry and blackberry was possible, but it is not till recently that the public attention has been called to the fruit, which is known as the Logan berry. The plant is believed to be hardy, although it originated in the mild climate of California, and the flavor is said to be good, but as to its commercial value we have not yet been informed. As it resembles the dewberry in its habits of growth, it should have some very decided merits to make it of value for cultivation. The berry is not yet well known, but that is so much the better for certain introducers, who claim that it is hardy, productive and a perpetual bearer, having a flavor beyond comparison with other fruits. It is also one of several kinds of fruits each one of which produces the largest berries in the known world.

These form only a partial list of the novelties this year, but they are sufficient for the present. It is not to be inferred that a majority of nurserymen make such extravagant claims for their stock, but that some of them do is well known. Where do they get their customers? Fruit growers must certainly understand their business better than to be deceived in this manner, and we have no reason to believe that farmers in general are so easily captured. But it is a familiar maxim that people like to be humbugged, and perhaps there are enough of victims among those who buy out of curiosity.

F. D. W.

SQUASHES ON MUCK LAND.

James J. N. Gregory, the noted seed man and vegetable grower, says on this subject:

A number of years ago I broke up a tract located just back of the horse barn. The soil is jet black, the location low, and during the winter overflowed. It is too soft at any season of the year to team over, but during the summer is sufficiently dry for tillage crops. Jim Lane (a hardy, tough Irishman, who has rested from his earthly labors now for many years) and I tapped a cesspool which bordered on the meadow, and carried the night soil on hand barrows to each hill, manuring very liberally. As the season advanced the vines started off almost on the run, for with the nitrogen in the night soil added to the nitrogen of the rich meadow they had a mighty dose of it. The rank vines, with the ends of their runners lifted into the air, and their tips bent just under, looked for all the world like a tangle of green serpents straining to free themselves. The crop was a large one, of large Hubbard squashes, of a peculiar rich, light green color. With the exception of a few which grew along the borders of a ditch which ran through the meadow, that were more or less eaten

by musk-rats, the crop was safely housed before the first frost. The final result was anything but satisfactory, for the quality of the squash proved to be quite inferior, were rather punky in their structure and soggy in their make up, both of which characteristics helped them on to an early and rapid decay. The two lessons I learned from that experiment were, first, to keep squashes off muck, unless it had first been heavily treated to sand or gritty soil, a hundred loads to the acre, to supply the silica which is wanting in all merely vegetable deposit; second, to use mineral manures, such as unbleached wood ashes and dissolved bone, rather than those strong in nitrogen on a soil that is already rich in that element.

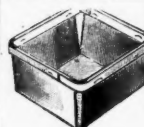
CARE OF CURRANTS.

A correspondent of American Gardening gives the following advice regarding the management of the currant:

Currant bushes require early attention, because they leaf out early. Some of the larger kinds such as Fay's Prolific have an unfortunate habit of trailing the lower branches on the ground; this tendency is true also of most of the red varieties and the fruit is usually a dead loss, owing to its immature condition at time of picking the bulk of crop, or its being taken by birds, or decay. I am not an advocate of spurring in a currant bush, as is sometimes practiced, but it is good each year to take off the lower branches that trail near the soil; and it will be found that there will be many such each time owing to the strong shoots of last year coming up in the center and crowding the older ones down. Currants never root deeply and should always be mulched if the soil be naturally moist, that the roots may be always cool. We like to apply this mulch early in the season before the earth gets dry, to help retain the natural moisture, and it is put on over the old material which will be found so full of young fibrous roots that it cannot be removed. A good sprinkling of a reliable fertilizer may be applied first, or the growth will be weak and next year's crop poor in consequence. Currants are best kept in a young, vigorous state, and each year in autumn we put in some cuttings to root, so that we always have on hand a plantation coming in to take the place of older exhausted bushes.

Cuttings may also be made now from the growth of last year a foot or so long, inserted in the soil the greater part of their length, and disbudded to the few buds at the top so that one good shoot can be trained up to make a stem for the coming fruit bush.

When writing to advertisers please state that you saw their advertisement in the Michigan Farmer.



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WHY TRANSPLANT ONIONS?

The value of the onion crop is too great to allow anything which tends to increase it go untended. Transplanting adds extra work, but it has been demonstrated that the difference in the yield justifies it.

Seed when sown under glass is much more uniform in coming up than when sown outside, and by the middle of April one may have onion plants six or eight inches high. Furthermore, the growth during the entire season of transplanted onions is generally very uniform and prompt. Really, transplanted onions will show a decided improvement in the hill growth over those sown in the open garden. They have the advantage of growing rapidly during the cool, moist spring weather, and accordingly their period of growth is greatly lengthened by this method.

Onion seeds sown in the open ground are largely dependent upon the weather, moisture, soil and vitality of the seeds for producing a successful crop, and if the elements happen to prove adverse, the crop will be a poor one. The risk is considerable, for the crop may be injured late in the season, when it would hardly pay to plant a second one. On clay soils the risk is greater than on muck soils, other conditions being equal. And if onions are to be transplanted it is advisable to use only the finer varieties, for nearly every plant can then be depended upon to produce satisfactorily. Neither does it pay to spend all the work for common, poor sorts. Grow the best it is possible to procure, if any; that is, those that are best adapted to your own soil and locality. Common onions, if desired at all, can be planted in the open garden in spring. This is good enough for such. Another thing in favor of transplanted onions is they can be kept free from weeds much easier, and with less expense than those sown right in the open ground. When transplanted the onions have such a start of the weeds it is an easy matter to keep them so far ahead that the weeds have but little opportunity to thrive.

F. O. SIBLEY.

For The Michigan Farmer.

MOTHER EARTH.

Fittingly named Mother Earth, for she gives us gifts of untold value. But most of us do not appreciate her, and never think that she is a great medicine chest, with cures for mind, and body. Spring, and outdoor work, will soon be here. Most of the women will put on a tight dress and a hat the size of a peck measure, and parade on the principal street, to meet others similarly attired, and then complain, and take medicine for that constant "tired feeling." And there is Mother Earth, a great magnet, filled with electricity, and for most people not two steps from the back door.

The best way to get acquainted, and profit by it, is to have a garden. And like all other medicine, be regular in working out doors every day. A thick carpet mat to sit upon is a good thing, and a trowel to dig. I have cured a headache by the smell of the earth, and many a sorrow has been helped, and every-day bothers forgotten in transplanting seedlings or loosening the soil around the plants. A lady, an enthusiastic plant lover, lived in health to great age, though naturally of a weak constitution. She told me, it was daily work in the earth that kept her well. In summer, out doors; in winter among her pet plants. One time she was confined to the bed with a hard cold, and she asked to have some of the potting soil brought to her. She held it to her nose, and let it run through her fingers, remarking that "there was more cure in that than a shelf full of medicines."

Apart from beautifying your home, whether large or small, there remains a very important reason why you should work in the garden beds. A lady told me that for years she was a prisoner to the house in late fall and winter, for she could hardly put her nose out of doors without taking cold. One early spring she began to work in her garden, and especially took care that she spent part of the time sitting on a mat, and digging the soil. She found, to her delight, that she was much stronger the following winter, went out every day, and did not have one cold. Many new homes will be started this spring, and let them be as far out in the suburbs as possible, with space for a garden. The land may cost more, but the money for it will be saved from the doctor and medicine bills.

ANNA LYMAN.

The Poultry Yard.

For The Michigan Farmer.
SUGGESTIONS FOR BEGINNERS.

Don't try and get your birds as big as a barn, with the idea they are any better bred, will lay any more eggs, or make any better eating. If you have Plymouth Rocks and they are standard weight, which is 9½ for cocks, 8 for cockerels, 7½ for hens and 6½ for pullets, they are all right; let them alone; don't try and put three pounds more on each; you may be able to do it, but if you intend to keep them for your own use, I say don't. That extra three pounds is fat only and not fit to eat, and means a basket only half full of eggs. I write the above from a fancy point of view, for in the show pen, in chicks, where there is a tie the lightest one wins. When you want to sell them on the market put on all the extra weight they will hold. If they come to standard weight quick and easy you can put on about two pounds extra with little or no danger to them. You will find the winning Barred Rocks at the shows not far from standard weight. If you want great big 12 and 15-pound birds get the Brahmas, but don't try and get Rocks up there, for it can't be done without a quarter of it being "hen's oil," and that you don't want on a healthy business bird. Our standard makers knew their business and put the weights on Rocks pretty near right. The idea that a bird must be "a great big slob" to be able to breed big birds is a wrong one. I have bred Light Brahma cockerels to weigh 13 pounds, and their sire and dam, both late hatched chicks, not one year old, and under standard weight. But let me say to you—they had plenty to eat, and the right kind of care. It simply can't be done with a slipshod way of doing business. Plenty of the right kind of feed will grow fine chicks and grow them big enough, too, and the sire and dam won't have to weigh a ton either. I have sold eggs before now from my best pen. When the fall fair came to hand the party that bought those eggs put a few chicks on exhibition, and such chicks as they were, too—no size, no color, no shape. They were starved, that is all. Feed makes color, shape and size. With a good run, where plenty of green stuff, bugs, etc., can be had, in sun and in shade, with pure fresh water, with bins of middlings, corn meal, wheat and corn, that don't get empty, with a man to clean out the coop every other day in the year and keep lice off, furnish sharp grit, cure sick chicks (or better, pull their heads off, for a very sick little chick is better off dead), with such treatment fine chicks can be raised that are a pleasure to see, not an eyesore.

If you care only for the dollar that is in it, if you have no love for the business, if you hate dirty fingers, hate to cure sick birds and fight lice, hate to fuss with setting hens, hate work, and think it is a snap to raise fine birds, let the business alone—keep out of it. Don't send off for a setting of eggs and let the chicks take care of themselves all summer, and then expect to win over the breeder you bought the eggs of.

If you send away for a bird and a neighbor wants to send with you and get one at the same place to save express charges, when they come don't throw out his bird and hide the shipping coop all for yourself. It may be only worth about 25 cents—it is only a small matter. Offer to buy or sell, don't be a pig.

A man wrote to an editor of a poultry paper the following: "How to take care of little chickens; and how to make a chicken coop; and chicken pen; and houses; and tend a pen of chickens; and how much ground to fence off; and what feed to give; and how to raise ducks with success; and how to take care of old ducks while laying, and little ducks while hatching and growing; and how to raise all kinds of poultry with success; for I want to start up in poultry, and want you to help me through." They say man wants but little here below, but there is a man that wants a lot more than any live man can give him. Now let us imagine that some reader of The Farmer has asked those questions; the writer will try and answer some of them: 1st. Keep their coops strictly clean, give pure fresh water in such a way they can't get into it; feed, when small, middlings and corn meal wet up with milk; use all

the middlings you can and not have it too sticky; later on feed millet, wheat, cracked corn, and corn. 2d. If you can get a board 18 or 20 inches wide, cut off three pieces two feet long, nail two together so they will look like the letter V reversed; use the other one for the bottom, nail up the back tight, put on slats in front two inches wide, running up and down, and you have a good coop, one that is water-tight and will keep out varmints if a wide board is put up in front nights; but this coop will be a death-trap when hot weather comes unless you give plenty of fresh air. Then remove the whole back and tack on wire cloth. 3d. I don't know what he means by a chicken pen, unless it is a pen made around the coop to shut the chicks in. If that is it, don't make one; let the chicks run. 4th. Send 25¢ for a book on poultry houses. 5th. Take The Michigan Farmer and learn. 6th. Don't fence off any; if you must, make it as big as possible; 20 by 100 feet makes a nice little run for about 25 head. 7th. 5th answers this also. 8th. Get a Pekin drake to weigh 10 lbs., and 5 ducks to weigh 8 lbs. each, not under ten months old; this will do for a start. Now, question 9. Give them a good fair-sized crop, and keep it clean. Keep them shut in nights so you can get their eggs. They lay in the night or very early in the morning. It is no use to furnish them a nest, as they won't use it but lay where they please and cover them up. Keep oyster shells and grit where they can get all they want. You will find for feed that middlings, bran and corn meal, one-third of each wet up with water, is all right. Use three times a week one to ten of meat meal; it can be bought dirt cheap now, about \$1.80 per 100 lbs.; also use a little salt. When you feed always give water, for they want a mouthful of water to one of feed. They like a creek to run to, but can get along without it. Shut them in a yard or field away from the house. 10th. If you hatch ducks with hens, as fast as they hatch remove them, or the hen will kill them in the nest, as they are clumsy and hens seem to find delight in stepping on their necks. They care very little for a mother, and are easily brought up in a basket or small box lined with straw. When the weather is good put them out doors in a pen on the short grass, in the shade and sun, and be sure and don't forget the shade, or you will wonder why you can't raise ducks. For feed, ground crackers are good wet up with milk; if you can't get this, middlings and fine corn meal wet up with milk is o. k. Never feed it sloppy; give water in such a way they can't get into it, only their bill. Give 10 per cent of meat meal. 11th question. 5th answers this. Ducks are great layers. From March 13, four ducks have laid 94 eggs.

Setting hens are now in great demand. I shut mine in a room by themselves in shoe boxes, costing 10¢ each; one box makes three nests. I remove the hens once a day for feed (corn) and water. It takes but little time and all is secure.

Eaton Co.

F. M. BRONSON.

A New Cure for Kidney and Bladder Diseases. Rheumatism, etc.—Free to our Readers.



Mr. R. C. Wood, Lowell, Ind., extraordinary record of 1200 hospital cures in 30 days. It acts directly on the kidneys and cures by draining out of the blood the poisonous Uric Acid, Urates, Lithates, etc., which cause the diseased conditions.

Rev. A. C. Darling, of North Constantia, New York, testifies in the Christian Witness that it cured him of Kidney disease after sixteen years' suffering. Hon. R. C. Wood, of Lowell, Ind., writes that in four weeks the Kava-Kava Shrub cured him of Kidney and Bladder disease of ten years' standing, and Rev. Thomas M. Owen, of West Pawlet, Vt., gives similar testimony. Many ladies also testify to its wonderful curative powers in disorders peculiar to womanhood.

That you may judge of the value of this Great Specific for yourself, we will send you one Large Case by Mail FREE, only asking that when cured yourself you will recommend it to others. It is a Sure Specific and cannot fail. Address, The Church Kidney Cure Company, No. 409 Fourth Avenue, New York City. Mention this paper.

SEED CORN

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A dilapidated hen-house, full of cracks, with sheathing away, shingles half off of the roof, broken window-panes, etc.

How often this is seen, and yet the owner wonders why his hens do not lay more eggs.

Keep your hen-house warm and dry. We wish to suggest a cheap and serviceable way.

Covering it with Neponset Waterproof Red Rope Fabric, which is water, wind, frost, and vermin proof, is very inexpensive and durable. It only costs one cent a square foot at the factory, with nails and tin caps to put it on.

Line the inside with Neponset Black Building Paper, which is water, air, and vermin proof, odorless, clean, and exceedingly inexpensive; you have a snug, comfortable hen-house with a very small outlay.



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EGGS. Heavy weight Light Brahmas, 15 for \$1; 30, \$1.50. Pekin Ducks, large, 11 for \$1; 22, \$1.50. E. D. BISHOP, Woodbury, Mich.

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Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

All correspondence for this Department should be addressed to A. C. Bird, Highland, Mich.

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Vice-President—Mrs. E. L. Lockwood, Petersburg.
Secretary-Treasurer—C. M. Pierce, Elva.
Directors—W. H. Howlett, Dansville; C. J. Phelps, Damon; F. M. Whelan, Vernon; A. L. Landon, Springport; H. Gaunt, Highland; A. P. Greene, Eaton Rapids.
All communications relating to the organization of new clubs should be addressed to C. M. Pierce, Elva, Mich.

THE PRESENT RURAL SCHOOL SYSTEM, AND HOW CAN WE IMPROVE IT?

Extracts from a paper by C. M. Pierce, Secretary of the State Association of Farmers' Clubs.

The most of us are familiar enough with our present rural school system so it will not be necessary for me to go into detailed description. Suffice it to say it is a good system, one of the best in the world, but that does not mean there is no chance for improvement. Our rural schools in order to do the effective work they have done in the past must advance with civilization, in fact they ought to be the vanguard of all that is progressive and useful to our advancement.

It seems to me the only substantial way to improve our present school system is, to improve the patrons of our rural schools. Our rural schools are to a certain extent just what we make them. Again, it seems to me our present system could be improved by substituting a short practical course in agriculture in place of certain branches, and be led to desire a course in the Agricultural College whence we would come back to the farm to produce wealth instead of to squander it, as is often the case. Well might we copy after Belgium in improving our rural schools. Belgium has one of the most complete systems of agricultural education in existence. With an area smaller than that of Massachusetts and Connecticut, crowded with a population as large as that of the state of New York, there is no nation in the world that has so thrifty and prosperous an agricultural class as this. This can be accounted for in no other way but that the boys and girls are taught the benefits of practical farming from the time they are old enough to attend school till they graduate.

Our teachers are educated away from the farm, and as a result they instill the same feeling of antipathy into their pupils. There is a tendency among our educationalists toward a higher standard of education among our teachers. What we want is not so much a higher education as a more practical education.

Again it seems to me that our schools might be greatly improved by a change in our laws in regard to conducting teachers' examinations. I would make it necessary for every teacher of a rural school to take a course at the Agricultural College in place of the higher education so many are taking at present. As examinations are now conducted, many are granted certificates who are not qualified to teach, simply because they are personal friends of the examiners, or the examiners are influenced by some local politician. If the examinations were conducted by a state board not acquainted with any of the parties all these difficulties would be avoided, besides, in my opinion, examinations could be held in this manner at less expense. Again, I would raise the standard of the office of Commissioner of Schools. A man qualified for the position would be one of the chief, if not the chief element in the improvement of our rural schools.

Our present system would be immensely improved if this office could be entirely eliminated from politics. As I said in the first of my paper, improve the patrons and you will improve the schools. The farmers' clubs are doing much along this line. Let us keep up the good work till every school district has a farmers' club. And wherever the farmers' club exists we can point to a model rural school.

REPORTS FROM LOCAL CLUBS.

RAISINVILLE AND IDA FARMERS' CLUB.

Mr. and Mrs. James Thorn entertained the club March 25th. "Michigan day," being the subject, every one was expected to contribute something about the State. A paper was read by

Mrs. Silas Kring, giving an outline of its history and productions. Mrs. John Nichols read a selection on "Iron mining," and Mrs. Younglove one on "Michigan," followed by different members giving anecdotes of early life, its progress and schools. The subject proved to be very interesting, as well as beneficial.

A motion was carried by a full vote to instruct our representative to vote for the Pingree measure for the taxation of railroads, telegraph and telephone companies.

The insurance question was then taken up. There was considerable difference and dispute on the management and nothing definite was decided. Meet next with S. McPetridge, April 24th. Question, Are farmers careful enough about the sanitary conditions of their homes? and, What constitutes a practical education for girls?

MERTIE KRING, Cor. Secy.

Monroe Co.

COLUMBUS FARMERS' CLUB.

Club met at home of Mr. and Mrs. Palmer Fuller March 23d, with a large attendance, there being nearly fifty members now. Two very good papers were listened to; one by Mrs. Bert Quick, on "Decorating the Table," and another by Fred Weeks, on "Corn Raising." A lively discussion followed the latter. Six new members with their families were received. On April 27th, at home of Mr. and Mrs. W. Congdon, occurs our next meeting.

St. Clair Co.

A. MEMBER.

ARETUS FARMERS' CLUB.

Last meeting held with Mr. and Mrs. T. E. Cook, with forty in attendance. Mr. Cook treated the club to some as nice apples as ever were grown. Papers were read by Mrs. O. R. Vantine and Miss Argie Vantine. Next meeting April 23d, at home of Mr. and Mrs. Stuart Gorton, Luzerne.

Oscoda Co.

REPORTER.

SOUTH VERNON FARMERS' CLUB.

April meeting with Mr. and Mrs. Easler was full of interest and profit. Messrs. F. Clark, N. West, and W. G. Smedley were elected delegates to the meeting at Corunna to organize a County Association of Farmers' Clubs. Quite a lively, but friendly discussion was indulged in by Rev. Benson and Mr. Whelan concerning our present relations with Spain. One thought we as a nation ought to assist Cuba in regaining her freedom; while the other said this nation would be stepping on dangerous ground by interfering with this matter, and that other nations were only waiting for the United States to take a hand in this affair, which would doubtless end in a siege of war between all nations. We meet with Mr. and Mrs. D. Williams in May.

M. VAN ALSTINE, Reporter.

Shiawassee Co.

BERLIN FARMERS' CLUB.

April club met with Mr. and Mrs. McGeorge, at Riverside farm. A paper on "True Greatness," by Mrs. Groat clearly stated that the housewife, in performing her manifold duties, in sacrificing herself to the interests of husband and children through a motive of love, is truly great. Discussion as to whether parents are doing their duty to their children in denying themselves for the sake of making life easier and pleasanter for them, and denying them the privilege of forming and developing a character, which can only be done by actual combat with difficulties. Next subject taken up was the relative value of the three fertilizers, viz: commercial, barnyard and clover. After an able discussion in which successful and experienced farmers joined, it was decided that all three should be used to obtain the best results, and that a proper knowledge of the soil by actual analysis is essential in order to know how and where to use them. It was suggested that more farmers had better attend the Agricultural College.

St. Clair Co. MRS. J. L. IVES, Cor. Sec.

HENRIETTA CENTER FARMERS' CLUB.

March meeting held with Mr. and Mrs. Arthur Holling. The following officers were elected for ensuing year: Pres., O. Carley; vice-pres., T. Whitney; sec., Mrs. T. Whitney; treas., Wm. Fleming; club reporter, Mrs. H. Gibbons; assistant reporter, Maude Whitney. The viewing committee reported everything in first-class order. Next meeting at home of Mr. and Mrs. Wm. Coin. Question for discussion, "How Can Our Rural Schools Be Improved?"

Jackson Co.

JANIE HANKARD.

UNION OF CLINTON CO. FARMERS' CLUB.

April meeting held with Mr. and Mrs. J. S. Pierce. A paper was given by W. N. Reddout on "Stand by the President." In the paper and the discussion that followed by Messrs. Jewett, Keys, Scott and Sage, no one

opposed the moderate actions of President McKinley in regard to Cuban affairs. A paper on "Education versus Experience," by Earl Ingersoll, was followed by an interesting discussion. Mrs. Krell and Mrs. Scott then gave their ideas in brief how they would prepare for house-cleaning. "Snakes Beneficial to Agriculture," by W. N. Reddout, showed how our harmless streaked snakes are exterminators of the insects that destroy our crops. Leroy Woodbury read a brief paper showing how their club work is carried on in school. Question for general discussion, "How may the Rural School be improved?" brought out a good discussion. Mr. Sage said, When you get a good teacher keep him or her as long as you can. Mr. Sevey: Two or three weeks' time is lost every time we change teachers. Mr. Jewett: The foundation is wrong; the office of county school commissioner should be non-political. Mr. Scott: We might establish a school where the 8th, 9th and 10th grade work might be taught within a range of five or six districts, thereby reducing the expense of sending our children away from home.

Clinton Co. ERIE INGERSOLL, Cor. Sec.

WALLED LAKE FARMERS' CLUB.

Club met at the residence of Mr. and Mrs. Clark Jones. The Association question was led by Mr. Ranous, who seemed to think that the officers of the Monitor Insurance Company did not carry on the company properly. Suggested no changes except to form a new company. A. E. Green thought the Monitor was trying to make improvements as fast as the members would allow them. F. B. Tanner compared the rate of assessment with that of the Southwest Insurance Company of the county, concluding the latter was not very successful considering that they had had no losses by fire. No conclusion was reached as to improvements. Next meeting at the residence of A. E. Green, April 13th.

Oakland Co.

Cor. Sec.

GENOA FARMERS' CLUB.

April 2d, at the home of Mr. and Mrs. H. J. Lawson about eighty of the members of the club met for the regular meeting. A paper by Mr. McNamara explained the township system of schools as advocated, as well as the present school system. He said the farmers will have to decide for themselves. Is in favor of the district system with good teachers. A helpful feature is the school library. Keep and add to it. Those who discussed the paper were in favor of the present system but would be glad of improvements.

The paper by Mrs. Fishbeck was a feast, containing much good thought, especially for the young members of the family. She spoke of mothers taking a rest during vacation months of school. Mrs. Conely, in an excellent paper, hinted at the progress in school work during the past few years.

The following resolutions were adopted: Whereas, It appears that many people, regardless of occupation, are dissatisfied with the manner of conducting Farmers' Institutes, Be it resolved, That it is the sentiment of this club that there should be no more appropriations made by the State for institute work. That we are decidedly opposed to the State controlling county institutes at our expense. That while we fully appreciate the benefits derived from the talent provided by the State, we are also confident of the ability of home talent to conduct the institutes.

Next meeting with Mr. and Mrs. Chas. Pless, May 7th.

MRS. M. E. DUNNING, Cor. Sec.

Livingston Co.

OXFORD FARMERS' CLUB.

Club met at the home of James Adams, March 26th. The rural school question created considerable interest. M. G. Dunlap wondered that the schools were as good as they are, since parents seldom visit them or seem to take any interest in them. Yet scholars from these schools usually have a better knowledge of arithmetic and the lower branches than scholars from the village schools. Others in recommending improvements, suggested: Visiting the schools frequently, keeping good teachers as long as possible, even if wages must be raised, providing school houses with globes and maps, beautifying the grounds and not hesitating at any reasonable expense to provide for the children's convenience and happiness. An investment in good schools is profitable even from a financial point of view, and to those who have no children themselves to educate; for the better educated the people of a nation are the more valuable become its possessions. The Misses Sisson,

McKay and Skidmore, lady teachers in the vicinity, were present and took an active part in the meeting. It is the opinion of your reporter that clubs would be doing the proper thing to make school teachers and ministers of the gospel honorary members.

The following resolution was passed: That this club, irrespective of party, most heartily endorses Gov. Pingree's attempt to bring about equal taxation in Michigan.

Oakland Co.

REPORTER.

LIBERTY FARMERS' CLUB.

At the April meeting the discussion of the Association topic was opened by the reading of an editorial in The Michigan Farmer on the subject by the secretary. In the discussion, among the suggestions offered were: Furnishing necessary apparatus; requiring officers to do their duty; visiting the schools by parents; giving less power to superintendent of public instruction and county commissioner of schools; allowing the districts to hire whomsoever they please; a stoppage of the practice of throwing out so many good and experienced teachers because they can not get a higher than third grade certificate; not allowing the law to fix the status of what shall be taught in the district schools, and the establishing of a high school in every township.

The following resolution was adopted: That we recommend to those desiring a higher education than can be obtained in the rural school that they attend the Agricultural College.

Also: We, the legal voters of this club, believe that all property should be equally taxed according to its cash value, and are opposed to any special or specific tax that will result in a less per cent of taxes on the cash value of the property than the average per cent of the State by direct taxation. We also believe that nearly every taxpayer, outside of those who have a special tax privilege, is in favor of one law for all and every taxpayer of the State, and that the time has come when our legislature should comply with the wishes of an overwhelming majority of their constituents. Therefore, resolved, That we demand that the present legislature, in special session, enact a law that shall secure equal taxation on all property, either real or personal, in the State. That we will not vote for the re-election of any senator or representative who we know will vote against such a measure. That a copy of these resolutions be sent to our representative and senator, and that we ask the co-operation of the farmers of the State.

MRS. J. D. CRISPELL, Reporter.

Jackson Co.

WHITE LAKE FARMERS' CLUB.

The club met at the home of Mr and Mrs. Geo. Hubbard April 2d. In the discussion of the Association question the following improvements were suggested: Uniform system of text books; officers should frequently visit schools and have more oversight of the work; parents should also visit the school and manifest more interest in it; officers should be chosen from those having children in attendance; teacher's contract should be more binding and explicit; small districts should be consolidated; it was recommended that teachers should board around in order that they might become better acquainted with the parents and the home surroundings of the children; small children should be started right and receive more attention than is frequently given them; reading should receive more attention; writing tablets should be used instead of oral work in the spelling class.

What is the best method of performing highway labor? Roads should be well graveled, and if sandy, clay should be applied with the gravel. Well qualified men for overseers. Work done as early in the spring as possible. Wide tire wagons help.

After thorough discussion the following was adopted: That we are in favor of the annexation of the Hawaiian Islands. Next meeting with Mr. and Mrs. Edgar Voorheis, May 7th.

Oakland Co.

J. J. Cor. Sec.

PEACH PLAINS F. M. B. A.

At the last meeting the utility of the goat for milk was discussed. It was decided to try to persuade some one to try the experiment. The claim was made that the milk of the goat is most excellent. The offer of the Agricultural College to send sugar beet seed sufficient for one acre in each county was read. No one was willing to undertake the matter. It was estimated that the experiment would cost the one carrying it out at least \$50. No one was anxious to donate this to the good of the cause.

Gtawwa Co.

X., Reporter.

WEBSTER OF OAKLAND FARMERS' CLUB.

We met April 6th at the home of Mr. and Mrs. F. A. Jones. Josiah Emery led the discussion on the Association question. Thought the rural schools of thirty years ago preferable in some respects to those of to-day. There was less cramming but more thorough work done then than now, and the scholars were better fitted for the duties of life. Some of our best men received only a district school training. Difficult to get good teachers from graduates of the city schools. Mr. Jones believed in free schools to the ninth grade but not beyond. Let the children help themselves beyond that point. Mr. Carpenter also preferred some of the management of thirty years ago to that of to-day. There ought to be more practice given in reading and spelling. Children to-day plainly show this lack. A discipline in oral spelling not to be found in modern methods. Others thought the memory exercises in written spelling was of a higher grade.

Next meeting with Mr. and Mrs. James Smith, May 4th.

OAKLAND CO. MRS. T. SEAMALK, Cor. Sec. MERIDIAN FARMERS' CLUB.

Mr. and Mrs. Daniel Lewis entertained the April club. H. W. Hubbard opened the Association question. He favored the unit system. Better ventilation could be secured in a large building, greater inspiration in teaching a large number of scholars than in a district school. Other members favored rural schools but all wanted uniform text books.

"What is the best method of getting cap honey?" R. M. Cross; when apple trees are in blossom raise the cap and put in the section frame; when that is partly filled raise carefully and place another section underneath, since bees always work toward the top and will never leave the upper frame till filled. D. Lewis, A. H. Warren and E. Swarthout were appointed delegates to the meeting for forming a County Association. It was voted to have our summer meetings commence at one o'clock. Next meeting May 6th, with Mr. and Mrs. Cross at Locust Home.

MRS. J. B. MORRISON, Cor. Sec. Shiawassee Co.

MARION FARMERS' CLUB.

Whatever doubts the organizers of the club may have felt as to its ability to develop strength with its increase of age, they have long since been set at rest. A more harmonious, sympathetic and enthusiastic farmers' club can not well be imagined. The success of all its meetings clearly attests this fact and proves beyond a doubt that the rural population can organize and enjoy to the full the privileges offered through that organization. The meeting of the club last Thursday, at the home of Mr. and Mrs. H. E. Reed, was eminently successful, fully 150 being present. Papers were read by L. I. Bromley on "Fruit on the Farm," and Miss Jennie Topping on "The Farmer's Daughter." The taxation question was discussed somewhat and resolutions calling upon our representatives at Lansing to favor legislation looking to an equalization of taxes, were adopted. W. H. S. Wood of Howell entertained the club with a talk on popular topics. Mr. and Mrs. W. A. Clark entertained the next meeting.

Livingston Co. L. I. BROMLEY, Cor. Sec. UNION FARMERS' CLUB OF MUSSEY.

This club met at the home of Sherman Sherrard on the 7th inst. The discussion of "Canada thistles" was led by O. B. Smith, followed by R. G. McNaught. Much interest was manifested. Other subjects were discussed. Three families applied for membership. Viewing committee reported A. C. Fairbrother's farm in fine shape. Next meeting at the home of Edward Matteson, May 5th.

MRS. R. M. MATTESON, Cor. Sec. St. Clair Co.

MT. SALEM FARMERS' CLUB.

Club met March 31st at the home of Hon. Wm. Power. Daniel Foley gave a very interesting report of the Round-Up Institute at Lansing. The discussion on the proper methods employed in feeding and caring for cattle was instructive and profitable. Good hints were given regarding the necessity for State inspection of grains. The farmer is capable of taking care of himself and can succeed by concerted and united action. If properly organized can secure the enactment of good laws. Farmers are paying unreasonable taxes. Frank Collins held the audience closely on the subject of botany, taking the growth and generative properties of the lotus as a leader and handling his subject with the skill of a professor. The question box

brought out the opinion of the club regarding the position of President McKinley on the Cuban question. Quite a few of the members freely expressed opinions. Austin Cope, an old soldier, one whose record was above reproach throughout the civil war, said he was pleased with the remarkable coolness and judgment displayed by our chief executive in not hastily rushing the country into war. He thought the President would first employ all peaceful means at his command, but if this failed he was sure our President would not flinch but that he would be firm and staunch in defending the honor of the flag.

April meeting the 28th inst. at the home of L. Powers.

MRS. MAURICE FOLEY, Cor. Sec. St. Clair Co. SOUTHERN WASHTENAW FARMERS' CLUB.

April meeting held with Mr. and Mrs. H. R. Palmer. President English opened the meeting by suggesting that as spring was at hand it was a good time to review past labors and experiments and ascertain what methods paid and what did not. Mrs. Annette English read a beautifully written paper on "Seasonable Suggestions for the Garden." Spring time is short, work multiplies and work in the garden seems of secondary importance. The thrifty housewife has the spring sewing, house cleaning, soap making and many other important duties to attend to, hence garden making is likely to be neglected. It is essential that the soil be suitable, that the seeds be planted at the proper time, that one work persistently and energetically to make it a success and that the pigs and chickens be confined to their own sphere of action. Carrot, onion, pea, and beet seed should be soaked in water over night before planting. Flowers are a source of pleasure to us and when shared with others speak of sympathy and good friendship.

Mr. Hitchcock, in an able paper, introduced the topic for discussion. "Which is more profitable, a small farm or a large one?" in which he favored the large one for the following reasons: First, rotation of crops can be practiced better. Second, not so many tools are required in proportion to the size of the farm. Third, the cost of fence is not so much. Fourth, some crops can be grown more cheaply in large fields. Fifth, large farms can keep sheep. Sixth, large farmers can get goods cheaper. Mr. Rawson: The profit of the farm depends more on the man than the size of the fields. Many men capable of running small farms successfully would make a failure on a large farm. Can pay better attention to details on the small farm. Small farms are better for the country in general. It makes more homes and more schools. As a rule they pay better interest on the investment. Mr. Pease thought the size of the farm should be determined by what a man can pay for farm must hire the most of his work done. Mr. Merrithew said we should and work well. The owner of a large be governed by locality. For stock raising the large farm is a necessity. A farm of 150 to 200 acres is about right. Mr. Watkins thought it as easy to run a large farm as a small one. The principal was the same, the same number of fields and the same general line of work. The ground covered by fences on a small farm is a large item. Grain is raised cheaper and expenses more easily paid on the large farm. The prevailing opinion seemed to favor small or medium-sized farms. The annual meeting and election of officers will be held at the home of Mr. and Mrs. John G. English, May 6th.

EVELYN SPAFORD, Reporter. Washtenaw Co.

EAST BLACKMAN AND WEST LEONI FARMERS' CLUB.

March meeting held with Mr. and Mrs. J. Chanter. A paper by S. E. St. John on "Our Mutual Insurance Company" made the following suggestions: First, the re-issuing of risks as often as once in five years. Second, A more careful and rigid inspection of risks. Third, A change in the method of collecting assessments. Fourth, A larger attendance at the annual meetings. He also made this statement, "I think the outlook for our company is more favorable than it has been for some time. The present assessment, \$3 per thousand, will give us a surplus of 30c per thousand after paying all debts. The losses for the first four months have been but \$700 as compared with \$3,267 the same time last year. I believe the officers of this

company are conscientious in the performance of their duty and no one would be better pleased to find a way by which improvements may be made than they." Meet with Horace Beach, April 21st.

JACKSON CO. MRS. WM. BEEBE, Reporter. HILLSDALE-LENAWEE HORTICULTURAL SOCIETY.

Met with Mr. and Mrs. Wm. Holbrook April 7th. Arthur Taylor read a paper on "The District School and the Unit System," which was followed by a very general discussion. The sentiment of the society seemed to be voiced by President Weed, who argued that we should stand by the district school. The Township Unit idea is very unpopular in this region.

"The Corn Crop from Start to Finish" was presented by Wm. Alexander, who advised planting large varieties, four feet apart, have a well pulverized seed bed, give thorough cultivation, set up in large shocks, feed whole. Has tried shredding fodder but is not sure that it pays.

The society had the pleasure of entertaining the State Horticultural Society March 23-4th. A vote of thanks was given the mayor and such citizens of Hudson as contributed to their entertainment. The local committee reporting the necessary funds it was voted to procure a circulating library of the State librarian. Resolutions were passed recommending such legislation by Congress as will enable the Inter-State Commerce Commission to enforce its decisions in regard to freight rates.

A bureau of advertising was added to our club paper. The society voted to hold a Horticultural Institute at our June meeting, which was appointed to be held at the home of D. A. Curtis, at which it is expected that Prof. Taft will be present.

ORIN O'HARROW, Cor. Sec. Hudson, Lenawee Co.

GRAND BLANC FARMERS' CLUB.

It is some time since we have sent a report from our club and it has been rumored that we were dead, but we are a lively corpse yet. Our last meeting was in Davis Hall, April 8th. New officers were elected and there is every prospect that we may still help to carry on the good work the farmers' clubs are doing throughout the State. Next meeting, May 13th.

A. ROXANA KEYSER, Cor. Sec. Genesee Co.

SEVILLE AND SUMNER FARMERS' CLUB.

Club met at the home of G. Quick, April 7th, with about 45 members present, besides several visiting members from the newly organized club of Arcade township. "How shall we kill smut or grain to be used for seed?" C. Gerber; use the blue vitriol treatment, but be careful to keep the treated grain from the stock. Can apply with a hand spray pump.

After completing the general program, the club adjourned to meet in May with Mr. and Mrs. W. J. Fullerton.

Gratiot Co. W. C. PUGSLEY, Cor. Sec. PROGRESS FARMERS' CLUB.

Club met April 6th at the home of Mr. and Mrs. John Thompson. Chief topic for discussion, "Roots as a crop for profit." All except M. E. York were in favor of risking them for stock. He thought it too much work for the value of the food. Next club at the home of Mr. and Mrs. Merricale, May 4th.

MRS. F. A. BRADLEY, Cor. Sec. Tuscola Co.

WALES FARMERS' CLUB.

April meeting held at home of Joseph Dunsmore. Topic for discussion at afternoon meeting, "What is the best method of eradicating Canada thistles?" Henry Maurer said to plant the ground to corn and cultivate thoroughly. Many thought smothering a sure method of killing them. Others believed a more practical method is to prevent their seeding and thus at least prevent any general scattering of the plants. A vote being taken, nine approved of summer fallowing and for a hoed crop, corn preferred, for the purpose.

For the May meeting the topics are: "The most profitable fence" and "Dairy and food laws and the farmers' relation thereto."

MRS. ALBERT HAND, Cor. Sec. St. Clair Co.

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Gentlemen—Last season I used one of your Success Anti-clog Weeder. Bought it of my brother, R. H. Jones, and I wish to let you know how much pleased I am with the Weeder. One of my neighbors was afraid to buy, but he was not afraid to borrow. He borrowed mine and said he went over his turnips with it and was very much pleased with the Weeder and the good work it did.

For myself I can say a great deal of my corn—never saw a hoe in the field during the entire season. One piece I planted a little too thick; so when it was about one foot high I wished to thin it out so it would ear better. So I took the Weeder and started in; went lengthwise and crosswise, and every other way that I could drive my horse, thinking it might break off some of the stalks; but I can safely say that I did not break off two stalks in the whole field.

Before I had commenced to use my Weeder many of my neighbors thought that it would tear up the corn and potatoes. But after they had seen me give it this thorough trial they were convinced that it would not harm the corn in the least. The fact is, I am sure the Weeder will not injure any crop grown on the farm. It is very important, however, that the Weeder be started early. If the weeds are allowed to get a good start the Weeder will simply cultivate them, as it does the crop.

Yours truly, W. R. JONES.

Center, N. Y.

Messrs. D. Y. HALLOCK & SON, Gentlemen—How about the price of your Weeder for the coming season? Is it the same as last year? I intend to sell quite a good many. I used the Weeder I purchased of you last year on everything I raised, including even onions, and it worked to perfection on everything. I can honestly say I would not be without it for \$50, if I could not get another just like it.

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Beware of Infringements.

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Write for full information. Be sure to give name of County. D. Y. HALLOCK & SON, Box 806, YORK, PA.

Messrs. D. Y. HALLOCK & SON, York, Pa.

Dear Sirs—I intend to sell just as many Weeder as I can this Spring. I bought one last Spring for my own use and they are certainly a complete success, and I would not think of farming without one. Last Spring, in April, I contracted to cut and haul to the saw mill a lot of lumber; so I took all my men away, leaving only my fourteen year old boy on the farm. Now, I will tell you what he did. He took the entire care of thirty-five acres of corn and twelve acres of potatoes, working both crops entirely with the Weeder, and I never saw a finer crop in my life.

The secret of Success in using your Weeder is to start it early, before anything grows, and keep the soil stirred so no weeds will grow. No farmer can afford to farm without a Weeder, and all will own one just as soon as they realize its value.

Yours truly, HEZEKIAH GONGAMERE.

Messrs. D. Y. HALLOCK & SON, York, Pa.

Dear Sirs—Your favor of recent date, wishing to know if I am going to handle the Success Anti-clog Weeder the coming season received. I certainly am if you will permit me to, and I intend to push them for all they are worth.

I let my Weeder go wherever the farmers wanted to try it, and they all pronounced it a grand success; declared that it did fine work. The Weeder that I kept for my own use I would not take \$20 for if I could not get another just like it.

I sold one Weeder to a neighbor near by very late in the season, and I will tell you what he did with it. He planted one acre of potatoes quite late, and he tended them entirely with the Weeder until he went to hill them up, and spent but five hours work all told on the acre of potatoes. He told me he kept the time carefully that he spent in cultivating them. Said he started the Weeder before they were up, and went over the potatoes frequently.

Yours truly, J. W. HARDIN.

Russellville, Ark., December 24th, 1897.

"I had the best of success with the Success Anti-clog Weeder and Cultivator. I can truthfully say that I never used a tool that equalled it in young cotton and corn. I saved half of the hoeing and plowing by running the Weeder. I beat all my neighbors raising corn, and equalled any of them in producing cotton, with half the expense. Several neighbors say they want one. I want the agency for Pope and Yell counties, not just for 1898, but until all the farmers get one. They will all be sure to buy sooner or later."

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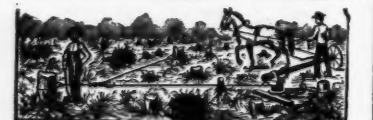
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